

**CORNELL UNIVERSITY
ANNOUNCEMENTS**

DECEMBER 18, 1963

**EDUCATION
1964-1965**

SCHOOL OF EDUCATION

ACADEMIC CALENDAR (Tentative)

1963-1964

Sept. 21	...S	Freshman Orientation	Sept. 19	...S
Sept. 23	...M	Registration, new students	Sept. 21	...M
Sept. 24	...T	Registration, old students	Sept. 22	...T
Sept. 25	...W	Instruction begins, 1 p.m.	Sept. 23	...W
Nov. 13	...W	Midterm grades due	Nov. 11	...W
		Thanksgiving recess:		
Nov. 27	...W	Instruction suspended, 12:50 p.m.	Nov. 25	...W
Dec. 2	...M	Instruction resumed, 8 a.m.	Nov. 30	...M
		Christmas recess:		
Dec. 21	...S	Instruction suspended, 12:50 p.m.	Dec. 19	...S
Jan. 6	...M	Instruction resumed, 8 a.m.	Jan. 4	...M
Jan. 25	...S	First-term instruction ends	Jan. 23	...S
Jan. 27	...M	Second-term registration, old students	Jan. 25	...M
Jan. 28	...T	Examinations begin	Jan. 26	...T
Feb. 5	...W	Examinations end	Feb. 3	...W
Feb. 6	...Th	Midyear recess	Feb. 4	...Th
Feb. 7	...F	Midyear recess	Feb. 5	...F
Feb. 8	...S	Registration, new students	Feb. 6	...S
Feb. 10	...M	Second-term instruction begins	Feb. 8	...M
Mar. 27	...F	Midterm grades due (at 12 noon)	Mar. 26	...F
		Spring recess:		
Mar. 28	...S	Instruction suspended, 12:50 p.m.	Mar. 27	...S
Apr. 6	...M	Instruction resumed, 8 a.m.	Apr. 5	...M
May 30	...S	Second-term instruction ends	May 29	...S
June 1	...M	Examinations begin	May 31	...M
June 9	...T	Examinations end	June 8	...T
June 15	...M	Commencement Day	June 14	...M

1964-1965

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CORNELL UNIVERSITY

SCHOOL OF EDUCATION

1964-1965

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FACULTY

As of December 1, 1963

- JAMES A. PERKINS, A.B., Ph.D., President of the University.
DALE R. CORSON, A.B., M.A., Ph.D., Provost of the University.
FREDERICK H. STUTZ, Ph.D., Head of the Department of Rural Education and Dean of the School of Education.
HOWARD G. ANDRUS, Ph.D., Director, Educational-Vocational Guidance Office; Professor of Guidance and Personnel Administration.
JOE P. BAIL, Ph.D., Associate Professor and Instructional Materials Specialist in Agricultural Education.
FRANK C. BALDWIN, M.A., Secretary of the University.
SARA E. BLACKWELL, Ph.D., Professor of Home Economics Education, and Head of the Department.
MARY ANN BRASETH, M.S., Assistant Professor of Home Economics Education.
MATTHEW H. BRUGE, Jr., Ph.D., Assistant Professor of Science Education.
ROBERT L. BRUCE, Ph.D., Associate Professor of Extension Education.
RALPH N. CAMPBELL, M.B.A., Professor of Industrial and Labor Relations.
MARY MARGARET CARMICHAEL, Ph.D., Assistant Professor of Home Economics Education.
CORA B. CHASE, M.S., Professor of Rural Education (Home Economics Education), Emeritus.
VIRGIL E. CHRISTENSEN, M.A., Assistant Professor of Agricultural Education.
ETHELWYN G. CORNELIUS, M.S. in Ed., Instructor in Home Economics Education.
HAROLD ROBERT CUSHMAN, Ph.D., Associate Professor of Agricultural Education.
ROBERT E. DOHERTY, Ed.D., Associate Professor of Secondary Education.
WILLIAM E. DRAKE, Ph.D., Assistant Professor of Agricultural Education.
ARTHUR E. DURFEE, Ph.D., Professor in Extension Service and Associate Director of Extension, and Professor of Extension Education.
MARGARET ELLIOTT, M.S., Instructor in Home Economics Education.
LYNN A. EMERSON, Ph.D., Professor of Industrial Education, Emeritus.
ROBERT H. ENNIS, Ph.D., Associate Professor of Secondary Education.
JEAN FAILING, Ph.D., Professor of Home Economics and Coordinator of Resident Instruction, College of Home Economics.
RICHARD B. FISCHER, Ph.D., Associate Professor of Nature and Science Education.
FELICIAN F. FOLTMAN, Ph.D., Associate Professor of Industrial and Labor Relations.
HARRISON ADAM GEISELMANN, Ph.D., Lecturer in Secondary Education.
MARVIN D. GLOCK, Ph.D., Professor of Educational Psychology, and Director, University Testing and Service Bureau.
D. BOB GOWIN, Ph.D., Associate Professor of Educational Foundations.
ELOISE T. HADLOCK, M.S., Supervisor of Practice Teaching in Science, Ithaca Public Schools.
FRANCES B. HELTZEL, Ph.D., Assistant Professor of Home Economics Education.
CHARLES W. HILL, Ph.D., Professor of Agricultural Education.
RICHARD JEAN HILLS, Ph.D., Assistant Professor of Educational Administration.
LAWRENCE B. HIXON, Ed.D., Associate Professor of Education and Director, Educational Placement Bureau.
SHIRLEY O. HOCKETT, M.A., Lecturer in Mathematics Education.
FRANCIS P. HODGE, M.A., Teaching Associate, Rural Education.
EDWIN R. HOSKINS, Ph.D., Professor of Rural Education (Agricultural Education), Emeritus.
MARGARET HUTCHINS, Ph.D., Professor of Home Economics Education, Emeritus.
WILLIAM L. IRVINE, Ph.D., Associate Professor of Education, and Coordinator of Inter-University Project.
MAURITZ JOHNSON, Jr., Ph.D., Professor of Secondary Education, Coordinator of Field Services, and Director, Junior High School Project.
PHILIP G. JOHNSON, Ph.D., Professor of Nature and Science Education.
PAUL J. KRUSE, Ph.D., Professor of Rural Education (Educational Psychology), Emeritus.

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- J. PAUL LEAGANS, Ph.D., Professor of Extension Education.
WILLIAM T. LOWE, D.Ed., Associate Professor of Secondary Education.
ELEANOR D. MACKLIN, M.A., Assistant Professor of Educational Psychology.
DONALD J. MCCARTY, Ph.D., Associate Professor of Educational Administration.
JASON MILLMAN, Ph.D., Assistant Professor of Educational Psychology and Measurement.
OSCAR G. MINK, Ed.D., Assistant Professor of Secondary Education.
CLYDE B. MOORE, Ph.D., Professor of Education, Emeritus.
HELEN MOSER, M.A., Associate Professor of Home Economics Education.
A. GORDON NELSON, Ph.D., Professor of Educational and Vocational Guidance.
HELEN Y. NELSON, Ph.D., Associate Professor of Home Economics Education.
MILACENT G. OCVRK, M.A., Supervisor of Practice Teaching in English, Ithaca Public Schools.
E. LAURENCE PALMER, Ph.D., Professor of Rural Education (Nature Study and Science Education), Emeritus.
H. IRENE PATTERSON, M.S., Associate Professor of Home Economics Education.
WALTER PAUK, Ph.D., Professor of Education and Director of Reading-Study Center.
ISABEL PEARD, Ph.D., Professor of Education.
CURTIS L. PFAFF, M.A., Supervisor of Practice Teaching in Social Studies, Ithaca Public Schools.
DOUGLAS R. PIERCE, Ed.D., Assistant Professor of Educational Administration.
KATHLEEN RHODES, Ph.D., Associate Professor of Home Economics Education.
RICHARD E. RIPPLE, Ph.D., Assistant Professor of Educational Psychology.
VERNE N. ROCKCASTLE, Ph.D., Professor of Nature and Science Education.
WILLIAM A. SMITH, Ph.D., Professor of Rural Education, and Director, Division of Summer Session and Extramural Courses.
WILL-ROBERT TEETER, M.A., Supervisor of Practice Teaching in Modern Languages, Ithaca Public Schools.
FLORA M. THURSTON, M.A., Professor of Home Economics Education, Emeritus.
FREDERICK K. T. TOM, Ph.D., Associate Professor of Agricultural Education.
GORDON F. VARS, Ed.D., Associate Professor of Secondary Education.
HELEN L. WARDEBERG, Ph.D., Professor of Elementary Education and Supervision.
ETHEL WARING, Ph.D., Professor of Child Development and Family Relationships, Emeritus.
CHARLES EDWARD WARWICK, Ed.D., Lecturer in Student Personnel Administration.
ANDREW LEON WINSOR, Ph.D., Professor of Rural Education, Emeritus.

THE SCHOOL OF EDUCATION

THE SCHOOL of Education at Cornell was established to provide opportunity for basic and advanced study and research in education. It is an organization through which the resources of the University are employed to offer a balanced program of general and professional education for students who plan careers in this field. Courses of study in the School prepare students for positions as teachers in elementary schools, junior and senior high schools, and colleges and universities; as school principals, superintendents, and supervisors; as guidance counselors or student personnel administrators; and for various opportunities at home and abroad in extension or adult education leadership. Advanced preparation at the doctoral level is provided for positions in teaching and research in colleges and universities, as well as for leadership positions in public education.

It is the purpose of the School of Education to direct the basic preparation of students so that maximum strength in the arts and sciences and in a teaching subject may be combined with an understanding of learning theory and applications, the social foundations and philosophy of education, and professional methods and practice in teaching. As an integral part of a University strong in the disciplines basic or allied to education, the School of Education provides an unusually fine setting for the person who combines preparation for teaching with study in the arts and sciences. Furthermore, the selection policy of the School affords a close relationship of faculty and students and encourages individualized programs for students in terms of their background, abilities, and professional interests. Independent study and honors seminars are expected of those who qualify. Students have the opportunity to observe, teach, and gain professional experience under qualified supervisors in the schools of representative New York State communities, so that theory and practice are integrated in programs of preparation.

Cornell offers all of the opportunities of a major university for students working in education. The entire curriculum of the University, its courses, laboratories, and seminars, is open to those who qualify. Those preparing for careers in education take classes with students from many backgrounds and with a variety of career interests. A wide selection of social, cultural, and intellectual experiences is available. The libraries are excellent.

The School is a member of the Association of American Colleges of Teacher Education, is approved for all programs by the National Commission for the Accreditation of Teacher Education, and is authorized by the New York State Education Department to recommend students for certificates to teach, administer, counsel, or supervise in the schools of the state. Most other states accept the recommendations of the School for certification purposes. Cornell programs lead to recommendation for certification in elementary school teaching, secondary school teaching (English, speech, social studies, sciences, mathematics, languages, home economics, agriculture), supervision, administration (principal, superintendent), and guidance and counseling.

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Undergraduates may complete certification requirements for secondary school teaching while meeting the degree requirements of their respective colleges. It is essential that the student planning for such teaching confer with the School of Education adviser for his field as early as possible. Advisers are identified on page 4 of this Announcement.

Students completing undergraduate requirements at Cornell, whether prepared for teaching or not, are encouraged to consider the several Master's year programs of the School leading to teaching in elementary and secondary schools. For those seeking positions, the Educational Placement Bureau, 320 Wait Avenue, provides assistance in obtaining appropriate employment.

The School accepts responsibility for only those students who enroll in registered programs leading to qualification and certification for school positions; those not in registered programs will be neither recommended nor assisted in placement.

HOUSING

UNDERGRADUATE MEN . . . Cornell University provides attractive, quiet dormitories for approximately 2,000 men. Complete cafeteria and dining service is provided in Willard Straight Hall, the student union building; Baker Cafeteria in University Hall, Unit 1; the Noyes Lodge on Beebe Lake; the Martha Van Rensselaer Cafeteria; and the Dairy Bar Cafeteria in Stocking Hall.

UNDERGRADUATE WOMEN . . . Cornell University provides comfortable, well furnished dormitories and dining rooms for undergraduate women students. Undergraduate women are required to live in University-operated dormitories, or sororities (for members only), unless, because of exceptional circumstances, other arrangements are approved by the Office of the Dean of Students.

An application form for living accommodations for undergraduate women will be sent to each candidate by the Office of Admissions with the notice of provisional acceptance to the University.

GRADUATE STUDENTS . . . Sage Hall, the graduate center, provides dormitory housing for approximately 200 men and women. Situated in the center of the campus, it is convenient to all colleges. There is a cafeteria in the building.

MARRIED STUDENTS . . . Unfurnished apartments for 400 married students and their families are provided by Cornell in the Cornell Quarters (84 apartments), Pleasant Grove (96 apartments), and Hasbrouck Heights (246 apartments).

Detailed information on all types of housing, including off-campus housing for men and married students, may be obtained by writing the Department of Housing and Dining Services, Day Hall.

UNDERGRADUATE STUDY

ADMISSION

A STUDENT planning to apply for admission to one of the undergraduate colleges should write to the Office of Admissions, Edmund Ezra Day Hall, Ithaca, N.Y., indicating the college in which he wishes to matriculate. A candidate for admission as a freshman in an undergraduate college must satisfactorily complete secondary school subjects carrying a value of a sufficient number of entrance units. The subjects in which these units may be offered, the number of units that may be credited in each subject, and the units required in specific subjects by the several divisions of the University, together with other general information about admission requirements and costs at Cornell, are described in the *Announcement of General Information*. Persons outside the campus may obtain any Cornell Announcements by writing to the Announcements Office, Day Hall. An enrolled student should inquire for Announcements in the administrative office of his own college or school at Cornell.

Information pertaining to veterans, health services and medical care, ownership of cars, and requirements in physical education is also contained in the *Announcement of General Information*. Information on military training at Cornell is available in the *Announcement of Military Training*.

A student pursuing the undergraduate program will pay the tuition and fees of the college in which he is matriculated as a candidate for the Bachelor's degree. See the *Announcement of General Information*.

The University maintains a placement service in the Office of Scholarships and Financial Aid, Day Hall, for handling requests for part-time employment. Opportunities arise for normal types of student employment.

UNDERGRADUATE PROGRAMS OF PROFESSIONAL PREPARATION

The requirements for teaching certificates vary considerably throughout the country. A student preparing to teach should not assume that the completion of the requirements for a degree at Cornell, including courses in education, automatically qualifies him for a teaching certificate in the locality in which he plans to teach. Special requirements of the state or city in which the student expects to teach should be a guide in planning a teacher education program. Questions concerning these requirements should be referred to the student's adviser in education.

Observation and directed teaching for academic teachers and elementary school teachers are conducted in selected schools of Ithaca and near-by communities. Student teaching also will be done in off-campus schools, selected primarily to provide better than average opportunity for experience and growth. Students in science and students engaged in student teaching in home economics or apprentice teaching in vocational agriculture will live in the school community

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during the period of this experience and will be expected to participate in community life.

In most cases the student will be assigned to a regular college adviser upon entrance. In order that the prospective teacher may secure advice regarding his professional program, he should, as early as possible in his University experience, consult with the official adviser in his teaching field. A list of these advisers is given below.

As the student proceeds in his preparation for teaching, appraisal will be made of the development of his abilities, understanding, and appreciations, and of such other qualities as make for success in teaching. Special determinations as to the fitness of the candidate to continue will be made prior to the period of student teaching in the senior year. Committees responsible for the selection in the several fields will be concerned with the personal and physical fitness of the candidate, his emotional and intellectual equipment, his general and special academic competence, his familiarity with current affairs, and his ability to use the English language.

Knowledge of the student gained by his advisers and his instructors, supplemented by the health record and the more formal measures such as psychological and personality tests, will provide information useful in judging the strictly personal factors involved. In general, each student will be expected to maintain a standing in scholarship at least equal to the average of his college. A steady growth in the use of English will be expected of each student. Standards of accomplishment will be set up for the several groups of prospective teachers, beginning in the freshman year, and checked at frequent intervals throughout the period of preparation.

These requirements and standards may be supplemented by additional requirements in the several fields in order to ensure a high degree of competence at all levels and to meet the special demands in different areas of teaching. Students entering the program later than the sophomore year will be expected to meet the standards and requirements indicated above and may find it necessary to remain for an additional term or summer session.

Students planning to teach should consult these official advisers:

Agriculture: Mr. H. R. Cushman, sophomores; Mr. F. K. Tom, freshmen and seniors; Mr. W. E. Drake, juniors; Stone Hall.

Elementary Education: Miss Helen Wardeberg, 110 Stone Hall.

English: Miss Isabel Peard, 111 Stone Hall.

Home Economics: Miss Helen Moser, East Wing 4, Van Rensselaer Hall.

Languages, Mathematics, Speech: Mr. L. B. Hixon, 112 Stone Hall.

Science: Messrs. P. G. Johnson, V. N. Rockcastle, R. B. Fischer, and M. H. Bruce, Jr.; 3 Stone Hall.

Social Studies: Mr. William T. Lowe, 201 Stone Hall.

Teachers of Academic Subjects

A prospective teacher of academic subjects must meet the graduation requirements of the college in which he is registered. For full information consult the appropriate college Announcement.

To teach an academic subject in the public high schools, the prospective teacher must complete considerable course work in the area to be taught and must also

fulfill certain minimum education course requirements as prescribed by the state or locality in which certification is desired.

Effective September 1, 1963, new New York State certification requirements for teaching academic subjects will take effect. Early in his college career a prospective teacher should make an appointment with the official School of Education adviser to determine the correct program to be followed.

PROVISIONAL CERTIFICATION, NEW YORK STATE

The provisional certificate received upon completion of a program qualifies the prospective teacher to obtain a teaching position. The certificate is valid for five years and must be replaced by a permanent certificate by the end of the period.

PERMANENT CERTIFICATION, NEW YORK STATE

Thirty graduate hours are required for permanent certification. A Master's degree will meet this requirement if it includes the necessary credit hours in general education, teaching field, and professional education. Information concerning graduate degree programs will be found on page 9 of this Announcement.

Teachers of Agriculture

GRADUATION REQUIREMENTS OF THE COLLEGE OF AGRICULTURE

Students preparing to teach in the field of agriculture on the secondary level will register in the New York State College of Agriculture and must meet the requirements of that College for graduation. The College of Agriculture requires the completion of the following program of courses: orientation, 1 hour; English, 6 hours; physical science, biological science, and social science and humanities, 39 hours as follows: (a) physical science: a minimum of 12 hours in at least two selected subjects with 6 hours in chemistry or physics; (b) biological science: a minimum of 12 hours in two selected subjects with 6 hours in biology, botany, or zoology; (c) social science and humanities: a minimum of 9 hours in two selected subjects; electives in the College of Agriculture, 54 hours; general electives, 20 hours.

TECHNICAL STUDIES IN AGRICULTURE AND RELATED SCIENCES

In the certification requirements for the preparation of prospective teachers through the New York State College of Agriculture, a total of 36 semester hours in technical courses must be taken in accordance with the following:

	<i>Semester hours Minimum</i>
Agricultural economics including farm management.....	6
Agricultural mechanics including field machinery, farm power, and welding	12
Dairy herd management and livestock feeding.....	6
Farm crops including field crops.....	6
Soil science	3
Dairy science	3

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In addition to courses listed above, fifty semester hours in agriculture and science courses must be taken. The student may obtain detailed information relative to these courses from an adviser in agricultural education.

PROFESSIONAL COURSES

The prospective teacher of vocational agriculture must complete a minimum of eighteen semester hours in accordance with the following:

	<i>Semester hours Range</i>
Practice teaching under supervision including conferences on teaching problems	4-8
Teaching methods and materials in agriculture.....	4-8
Psychology for teachers.....	2-6
History, philosophy, problems and/or principles of education.....	2-6

GENERAL ELECTIVES

The prospective teacher will find opportunity to select such courses from agriculture, science, or other University offerings as will contribute further to his preparation for teaching.

Teachers of Home Economics

GRADUATION REQUIREMENTS OF THE COLLEGE OF HOME ECONOMICS

Students preparing to teach home economics or do extension work in this field will register in the New York State College of Home Economics and must meet the requirements of that College for graduation. Detailed information may be secured from the *Announcement of the College of Home Economics*.

TEACHERS IN THE SECONDARY SCHOOLS

Students in the College who have satisfactorily completed the graduation requirements and who have followed a recommended curriculum in teacher education are eligible for a ten-year provisional certificate to teach homemaking in the secondary schools in New York State. Thirty semester hours of post-Bachelor study are required for eligibility for permanent certification.

EXTENSION WORKERS

SUBJECT MATTER RECOMMENDATIONS AND SUGGESTIONS FOR EXTENSION WORKERS . . . It is recommended that students preparing for extension work have general training in home economics and courses in sociology, psychology, economics, and education.

To assist the students in meeting these recommendations, a suggested plan is available for the use of students and their counselors. This plan provides for courses as indicated to meet graduation requirements, recommended courses of special interest for extension workers, and elective courses which will further contribute to the students' preparation for extension service.

SUGGESTED EXPERIENCE . . . A student preparing to do extension work should plan her college program and her experiences during the summer to provide opportunity to work with individuals and groups, to observe and study communities and the significant situations and problems to which home economics applies. Summer experience in the extension service program is recommended whenever possible. Opportunities for volunteer work may be provided between freshman-sophomore, sophomore-junior years by the extension service. A limited number of summer assistant positions with compensation may be available between junior and senior years.

Practice in public speaking, radio, newspaper writing, and discussion with a variety of groups and organizations will be valuable.

GRADUATE STUDY

ADMISSION

ADMISSION to study in the Graduate School is granted to graduates of approved colleges whose personalities, experience, and records provide evidence of ability to succeed in the various fields for which the school provides preparation. Members of the faculty examine carefully the application of each individual and make recommendations to the Graduate School relative to his fitness as a candidate. Every student seeking admission to the Graduate School must be admitted by the procedures required by that School before he registers in any course. Final admission rests with the Dean of the Graduate School.

An applicant for admission may become a candidate for a general degree (M.A., M.S., or Ph.D.) administered by the Graduate School, or for a professional degree (M.Ed., M.A.T., or Ed.D.) administered by the Division of Education of the Graduate School.

Fundamental differences between programs leading to professional degrees and those leading to general degrees include manner of meeting the residence requirement, the emphasis on research, the specification of hours of credit required, the extent of dependence on meeting certification requirements, and the degree of restriction to major and minor subjects of study.

STATUS OF ADMISSION . . . Every applicant accepted by the Graduate School is admitted in one of the following categories: (1) candidate for an advanced degree, either general or professional; (2) provisional candidate; (3) noncandidate.

Any student wishing to change from one category to another, or from candidacy for one degree to candidacy for another, must secure approval from the Office of the Graduate School.

Both provisional candidates and noncandidates will work under the supervision of a committee chosen by them.

PROVISIONAL CANDIDATES are expecting to take degrees eventually but for some reason are not accepted as candidates immediately. A change in status from *Provisional* to candidacy must be recommended by the special committee and the Field Representative. A provisional candidate for the doctoral degree will not be admitted to candidacy until he has satisfactorily completed a formal examination, written or oral or both.

Upon recommendation of the *provisional candidate's* committee and with the Dean's approval, he may reregister once in provisional status. When admitted to candidacy, he may petition for transfer of a maximum of one residence unit, provided there is sufficient evidence that his work has been of the same quantity and quality as would be required of a candidate. For doctoral candidates the examination completed to gain change from provisional status to candidacy may, at the discretion of the Special Committee, be counted as a part of the Qualifying Examination. (See Qualifying Examination, page 15.)

NONCANDIDATES have announced no intention of working toward an ad-

vanced degree, but wish special advanced training. The Graduate School will admit a limited number if facilities warrant and proper directors for the work desired may be found. Except with the permission of the General Committee, a student may register in this status only twice. Upon recommendation of the student's Special Committee and with the approval of the Dean, a maximum of one residence unit may be transferred to candidacy. A member of the University faculty may register as a noncandidate, but may not thereafter, under any circumstances, receive residence credit for any time during which he was so registered.

APPLICATION . . . An application for admission should be made on the proper form, which will be supplied at the Office of the Graduate School, Sage Graduate Center. No application will be acted upon until all the credentials enumerated in this form have been filed. For admission in the fall term, the application should be filed before March 1; for admission in the Summer Session, between March 15 and May 1. Though an application may be filed at any time, the officers cannot give assurance that it will receive the same consideration that it would receive if filed during those periods.

All applicants, including graduates of Cornell University, must submit complete official transcripts of all previous college courses.

To be admitted to the Graduate School an applicant (1) must have received his baccalaureate degree from a college or university of recognized standing or have done work equivalent to that required for such degree; (2) must show promise of ability to pursue advanced study and research satisfactorily as judged by his previous scholastic record, or otherwise, and (3) must have had adequate previous preparation in his chosen field of study to enter at once upon graduate study in that field.

ENTRANCE EXAMINATION . . . All applicants for candidacy to advanced degrees with majors in education—M.A., M.S., M.Ed., M.A.T., Ed.D., Ph.D.—residing in the United States or Canada, whose native language is English, are required to have scores submitted from the Miller Analogies Test and/or Graduate Record Examinations (the Aptitude Test and the Advanced Test in Education) before admission to candidacy.

An applicant who needs information concerning the location of a center where he may conveniently go for testing, should write to the Dean of the School of Education.

GRADUATE PROGRAMS OF PROFESSIONAL PREPARATION

Subjects of Study for Graduate Students

To meet the requirements of the Graduate School, candidates for advanced degrees must select a major or minor field of work or a field of concentration. Approved subjects for majors in the School of Education are:

Agricultural Education
Educational Administration and Supervision
Educational Psychology and Measurement
Elementary Education
Extension and Adult Education
Guidance and Personnel Administration

History, Philosophy, and Sociology of Education
Home Economics Education
Development of Human Resources
Nature, Science, and Conservation Education
Secondary Education

Candidates for advanced degrees in education are expected to include preparation in fields which supplement the field of professional education.

GENERAL DEGREES

Students with appropriate qualifications who are primarily interested in scholarly research may apply to the Graduate School for admission to candidacy for the degrees of Master of Arts, Master of Science, or Doctor of Philosophy. Also, a special division of the Graduate School administers the professional degree of Master of Science for Teachers. Requirements for these degrees are fully described in the *Announcement of the Graduate School*. Students who are candidates for any one of these degrees may either major or minor in one of the several areas of education.

All candidates for these general degrees must register both in the Graduate School and with the registrar of the University at the beginning of each term or session.

PROFESSIONAL DEGREES IN EDUCATION

Advanced professional degrees in education are designed as preparation for the professions in education. The admissions processes, requirements, and curricula for such degrees, as approved by the Graduate faculty, are announced and administered by the faculty of the School of Education, which is a division of the Graduate School. Degrees are awarded upon recommendation of the School of Education to the Graduate faculty. Three professional degrees, Master of Education, Master of Arts for Teachers, and Doctor of Education, are awarded.

It is the responsibility of the candidate to become familiar with the various regulations which apply to his degree candidacy and to satisfy them in the proper manner. Most of the regulations are contained in the *Code of Legislation of the Graduate Faculty*, Cornell University. These are supplemented in the *Announcement of the School of Education*.

Registration

All candidates must register in the Graduate School and with the Registrar of the University. On official registration days this registration takes place at Barton Hall. Preceding the fall term, the Registrar notifies all students of the hour at which they are to report; if a graduate student does not receive notification at least a week before registration day, he should communicate with the Graduate School. Registration must be made in person. If a student cannot register at the appointed hour he should report at the appropriate office at the earliest time thereafter, bringing an endorsement signed by his adviser or chairman. A fee of \$10 is required of matriculated students for late registration.

All students must file a *Registration of Courses* form in the office of the Graduate School not later than two weeks after registration.

A registered student who for any reason discontinues his work during a term should report that fact immediately to the School of Education and to the Graduate School to obtain an official withdrawal and any refund of tuition and fees to which he may be entitled.

Residence

Each candidate for an advanced degree is expected to complete his residence with reasonable continuity. Under any circumstances, a candidate who fails to register during any period of four or more years may continue only after the General Committee of the Graduate School has stipulated the amount of additional residence to be required. The Committee will be guided in its decision by an estimate, written by the candidate's Special Committee, of the period of study necessary to recover lost ground. A candidate must complete all requirements for a Master's degree within seven years, and for a doctoral degree within ten years, of the time of first registration in the Graduate School.

Residence may be earned in various combinations of:

1. Regular terms of full-time or part-time registration in the Graduate School during the academic year.
2. Six-week summer sessions (2/5 unit for each session of full-time registration for no less than 6 credit hours).
3. Three-week summer sessions units (two such units equal one six-week summer session).
4. Extramural registration on and/or off the campus (2/5 unit for each six credit hours).

Credit earned through three-week summer session periods *is not* transferable in fulfillment of residence requirements for the general degrees of M.A., M.S., and Ph.D., nor for the Ed.D. degree beyond residence earned in candidacy for the M.Ed. degree.

Residence credit earned during candidacy for professional Master's degrees at Cornell or elsewhere may be transferred toward meeting the residence requirement for a doctoral degree in an amount not exceeding two units. The amount transferable is dependent upon an evaluation of the candidate's program and the manner in which the residence was earned.

The Degree of Master of Education

The program for the degree of Master of Education (M.Ed.) is designed for those preparing for teaching or other comparable professional positions.

ADMISSION TO CANDIDACY

To be admitted for this degree an applicant must hold a Bachelor's degree from an institution of recognized standing, give evidence of ability necessary for successful progress in graduate study, and show a sincere interest in the profession.

RESIDENCE

For the M.Ed. degree a minimum of two residence units is required. Not more than 18 credit hours earned extramurally may be counted.

SPECIAL COMMITTEE

A candidate selects a Special Committee of two or more members from the Graduate faculty, one of whom will serve as chairman and represent the field of

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education. Other members of the Committee are to be selected with the advice of the chairman to give adequate representation of the candidate's program. The program must have the approval of all members of his Committee.

PROGRAM OF STUDIES

Within two weeks after registration for the first unit of residence a candidate shall meet with his entire Committee to plan a program of studies. The program, designed to develop professional competence, must include a minimum of thirty hours of credit in courses and seminars. Courses in *educational psychology* and in the *history* or *philosophy of education* shall be required of the candidate who has not previously completed such courses.

The candidate is required to have completed in candidacy or elsewhere the courses and the directed participation in the art of teaching appropriate to the field of professional service for which he is preparing.

The remainder of the candidate's program shall include courses in a teaching field or such other courses as will give unity and breadth to the program.

ESSAY

A candidate for the M.Ed. degree must complete an essay which is acceptable to his Committee. Two copies of this essay, suitably bound, must be filed with the School of Education for transfer to the Mann Library. Regulations regarding the preparation of the essay are the same as those prescribed by the Graduate School for theses.

FINAL EXAMINATION

For the M.Ed. degree a candidate must pass a final examination conducted by the Special Committee. The examination, to be both written and oral, shall be comprehensive in nature and designed to evaluate the candidate's proficiency in the theory and practice of education.

The Degree of Master of Arts for Teachers

The program for the degree of Master of Arts for Teachers (M.A.T.) is designed for persons provisionally certified to teach, having had either student teaching or full time teaching experience, who wish to add to their qualifications in the teaching subject of their choice.

ADMISSION TO CANDIDACY

To be admitted for this degree an applicant must hold a Bachelor's degree from an institution of recognized standing, hold at least a provisional secondary school certificate to teach in the field or fields in which the program is desired, give evidence of ability necessary for successful progress in graduate study, show a sincere interest in the teaching profession, and give evidence of ability to teach effectively.

RESIDENCE

Three units of residence are required. At least two academic terms of full-time residence at Cornell are required. The remaining unit of residence may be earned in summers, through extramural registration, or through transfer of credit for advanced study at Cornell or elsewhere.

SPECIAL COMMITTEE

The candidate will select or be assigned to a special committee of two or more members of the Graduate Faculty, one of whom will represent the Field of Education. The chairman of the committee will represent the field of major subject matter concentration. Additional members may be selected with the advice of the chairman to give adequate representation of the candidate's program. All members of the committee shall approve the program and recommend advanced standing, if any.

PROGRAM OF STUDIES

The program of studies is to include courses in the teaching subject area(s) appropriate for permanent certification, including a seminar on teaching in the major subject.

The fields of subject matter concentration are the social sciences, English language and literature, speech and drama, mathematics, foreign languages and literatures.

FINAL EXAMINATION

The candidate must satisfy his committee, through final examination or other means acceptable to the committee, of his knowledge of the content of his teaching field(s) and his understanding of the art of teaching this subject matter content.

The Degree of Doctor of Education

The program for the degree of Doctor of Education (Ed.D.) is designed to prepare the candidate for a position of leadership in the educational profession.

The candidate will be expected to prepare himself in courses and seminars representing a field of professional service. Fields are described in terms of professional positions for which preparation is offered. Approved fields of professional service for the Ed.D. degree are as follows: administrator, coordinator, curriculum specialist, extension specialist, student service specialist, supervisor, teacher.

ADMISSION TO CANDIDACY

A candidate for the Ed.D. degree must be a graduate of an approved college and must have completed a minimum of three years of successful experience appropriate to his proposed field of professional service.

The applicant must show evidence, based on previous training, of scholastic ability and other qualifications necessary for successful progress in graduate study, field experience, and professional work.

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RESIDENCE

In fulfillment of the requirements for the Ed.D. degree, a minimum of five units of residence is required beyond the Bachelor's degree, of which at least three units must be earned in residence at Cornell. Two units of residence beyond the Master's degree or its equivalent must be earned at Cornell in regular terms, consecutive except on petition.

Upon recommendation of his Special Committee, a candidate for the doctorate may be granted a maximum of two units of residence for previous study while regularly enrolled in a graduate school and pursuing studies toward an advanced degree.

The maximum number of residence units which may be earned through Extramural registration or in Summer Sessions at Cornell or in similar manner at other centers of graduate study is two and three respectively. (See Code, Paragraph 79.)

Except by petition, no graduate student may receive more than two units of residence during any twelve consecutive months.

In addition to meeting residence requirements, a candidate must complete successfully one year of participation in Directed Field Experience as described in subsequent statements.

SPECIAL COMMITTEE

A candidate selects a Special Committee of at least three members from the Graduate faculty, one of whom will serve as chairman and will represent the candidate's field of professional service. Other members of the Committee are to be selected, with the advice of the chairman, to give adequate representation of the candidate's program. The program must have the approval of all members of the Committee.

PROGRAM OF STUDIES

Within a period of two weeks after registration for the first unit of residence, the candidate shall meet with his entire Committee to plan a program of studies. The program, designed to develop competence in a field of professional service and in the general field of education, must include a minimum of sixty-five credit hours in courses and seminars beyond the Bachelor's degree, of which thirty-five hours shall be completed beyond the Master's degree or its equivalent.

The program of studies must include advanced work in each of these subjects: *educational psychology, history and philosophy of education, educational measurement and statistics, research in education*. At least fifteen hours of credit must be earned in courses other than those in professional education.

The transfer of credit earned in institutions other than Cornell University must be recommended by the Special Committee and approved by the Dean of the Graduate School.

DIRECTED FIELD EXPERIENCE

In keeping with the primary emphasis in the program for the Ed.D. degree, a minimum of two consecutive academic terms of full-time experience appropriate to the candidate's field of professional service is required. This period of participation, to be known as Directed Field Experience, will follow com-

pletion of a minimum of two units of residence at Cornell beyond the Master's degree or its equivalent. (Residence requirements are described on page 14.)

The opportunity for the Field Experience is to be sought by the candidate with the advice and assistance of the Special Committee, and the proposed plan for experience must be approved by the Committee. The opportunity sought must afford those practical experiences which the candidate and his Committee have identified as being needed in acquiring competence in the field of professional service for which the degree program has been designed. (Fields of professional service are identified on page 13.)

In advance of the period of Field Experience, the candidate will plan with his Committee, and with his supervisor or employer or both, for the kind and extent of experience to be obtained. Such planning will include a description of the means by which the experience is to be obtained, supervised, and reported.

The Special Committee will require the following records and reports of the candidate: (1) an outline or listing of the experiences as agreed upon, in advance of the Field Experience, by the candidate, the Committee, and the supervisor; (2) a periodic reporting by the candidate of activities engaged in or experiences obtained; (3) a statement of appraisal by the supervisor of the candidate's performance in obtaining experiences and of the values gained; (4) a final written report by the candidate which shall include an evaluation of experiences. The report of the supervisor and the candidate's written evaluation shall become part of the records indicative of completion of degree requirements.

Successful completion of the Directed Field Experience is prerequisite to recommendation of the candidate for the degree.

THESIS

For the Ed.D. degree the candidate is required to present a thesis which will give evidence of his ability to apply knowledge to a professional problem. The thesis must satisfy the Special Committee in respect to both professional proficiency and literary quality. Regulations concerning preparation and publication of theses shall be those prescribed by the Graduate School. Two unbound copies of the thesis must be filed in the Office of the Graduate School. The faculty requires the publications of abstracts and the microfilming of doctoral theses through University Microfilms, Inc.

EXAMINATIONS

Two examinations are required for the degree in addition to the entrance examination required of all candidates. These are (1) a qualifying examination and (2) a final examination. Although other members of the faculty may be invited to participate in these examinations, the Special Committee alone decides whether the candidate has passed or failed.

QUALIFYING EXAMINATION

A candidate for the degree is required to pass a qualifying examination, both written and oral, to be given before or during the third unit of residence. This examination has the double purpose of determining the ability of the candidate to pursue further studies and of allowing the Special Committee and the candidate to plan together a satisfactory program for completion of candidacy.

FINAL EXAMINATION

For the Ed.D. degree, a candidate is required to pass a final examination given by the Special Committee and other members of the faculty who may be invited to attend. The examination must be given in two parts—one part on the field of professional service and core studies in education (Examination A), which may be taken at the end of the fourth unit of residence; the second part, on the thesis (Examination B), is taken after the thesis is approved by the Special Committee. Examination A may be written or oral or both. Examinations A and B may precede or follow the period of directed Field Experience.

Examinations A and B are scheduled with the approval of the Special Committee. The scheduling of Examination A is to be announced to the faculty. At least one member of the Committee on Professional Degrees, or another member of the faculty designated by the Committee, shall attend Examination A.

FACILITIES FOR VISITING FELLOWS

The faculty welcomes mature scholars who wish to use the facilities of the University to prosecute investigations or to work with the faculty in the advancement of knowledge. A scientist or scholar who wishes to work on the campus may, upon recommendation of the department in which he wishes to work and endorsement of the dean of the college or school, be given the title of Visiting Fellow by the President. The Visiting Fellow has no formal duties to perform and is paid no salary by the University.

FEES PAYABLE BY GRADUATE STUDENTS

A registration deposit of \$28 must be made by every applicant for admission after the applicant has received notice of acceptance, unless the candidate has previously matriculated as a student at Cornell University. This deposit is used at the time of first registration to pay the matriculation fee, chest X-ray, and examination-book charge, and covers certain expenses incident to graduation if the student receives a degree. The deposit will not be refunded to any candidate who withdraws his application after May 22 or within 20 days of his admission approval.

Tuition of \$200 a term is to be paid by all students registered in the Graduate School with major concentration in subjects within the state-supported divisions * of the University; all others must pay tuition of \$685 a term. Tuition is payable, in the Treasurer's office, Day Hall, at the beginning of each term.

Upon recommendation by the appropriate dean and by action of the Board of Trustees, for each appointment in a state-supported school or college, waiver of tuition in the Graduate School may be made to a member of the teaching or scientific staff whose major field of study is in a state-supported school or college.

Graduate assistants on the nine- or twelve-month basis who reside here during the summer, who are registered for Summer Research for credit in the Graduate School, and who are required to give service in their department or division during that period, may be recommended for waiver of tuition during the summer period under the above limitations. This waiver of tuition does not apply if the student registers in the Summer Session. Those who are engaged

* The state-supported divisions are Agriculture, Home Economics, Industrial & Labor Relations, and Veterinary Medicine.

only in graduate study and not doing productive work for the department during the summer may not have their tuition waived.

Any student who is to receive less than full residence because of his employment should apply for proration of tuition on forms procurable at the Graduate School Office. Tuition is based on residence eligibility.

A candidate for the Ph.D. or Ed.D. degree whose studies have been satisfactory to the faculty is exempt from the further payment of tuition upon presenting to the Treasurer at the beginning of each term a certification from the Dean of the Graduate School that the minimum residence requirement for the degree has been completed.

A *College and University Fee* of \$187.50 a term, payable at the beginning of each term, is required of all students registered in the Graduate School with major concentration in subjects within the state-supported divisions. All others pay a fee of \$165. This general fee contributes toward the services supplied by the libraries, the University Health Services, and the student union in Willard Straight Hall, and pays a portion of the extra cost of laboratory courses and general administration.

A graduate student who returns to the University to present his thesis and to take the final examination for an advanced degree, all other work for that degree having been previously completed, shall register as a "Candidate for Degree Only" and shall pay a fee of \$35.

A *Thesis Fee* of \$30 is required of each doctoral candidate at the time of depositing the approved thesis and abstract in final form. This fee covers the cost of preparing a master microfilm of the entire thesis; of publishing the abstract in the bimonthly periodical, *Dissertation Abstracts*; of mailing the thesis and abstract to and from the microfilm publisher; and of binding both copies of the thesis for deposit in the University Library.

Limited scholarship aid is available to graduate students studying in major subjects where the higher tuition is required. Students interested in tuition differential scholarships should talk with faculty members or with the Office of the School of Education.

GRADUATE FELLOWSHIPS, SCHOLARSHIPS, AND ASSISTANTSHIPS

Information concerning fellowships and scholarships open to candidates in all fields may be found in the *Announcement of the Graduate School*. Financial assistance available to selected students in the School of Education is indicated below.

Holders of fellowships and scholarships pursue a full-time course of study and are usually not required to render services to the University; whereas students who are awarded graduate assistantships ordinarily spend twenty hours a week helping with instruction, research, or extension work. Assistants are eligible for residence units in candidacy according to regulations of the Graduate faculty. Assistantships usually extend over a period of twelve months. Many include a waiver of tuition, besides the stipend shown.

Requests for application forms and additional information concerning any of the opportunities listed below should be addressed to the Dean of the School

of Education, Stone Hall, Cornell University. Completed applications must be received by March 1. Announcement is made by April 15.

Assistantships

Stipends for assistantships vary in amount from \$2266 to \$3090, with appointments ranging from nine to twelve months. In the College of Agriculture and the College of Home Economics, tuition is waived for assistantships. Tuition is not waived in other assistantships. Twenty-two graduate assistantships (exclusive of resident assistantships in University dormitories) are offered as follows:

*AGRICULTURAL EDUCATION** . . . Open to graduate students who are qualified to assist in teaching and research in agricultural education.

*CRITICAL THINKING RESEARCH ASSISTANTSHIPS** . . . Open to candidates for the doctorate who are qualified to do research with the Cornell Critical Thinking Project; prior work in logic is desirable.

EDUCATIONAL ADMINISTRATION . . . Open to candidates for the doctorate in educational administration who are qualified to assist in the administrative intern project supported by the Ford Foundation.

*EDUCATIONAL FOUNDATIONS** . . . Open to candidates for the doctorate who are capable of assisting with instruction in the introductory course in social foundations of education.

*EDUCATIONAL PSYCHOLOGY** . . . Open to qualified candidates for the Ph.D. in educational psychology who are capable of assisting with instruction in the introductory educational psychology courses.

GENERAL PSYCHOLOGY† . . . Open to qualified Ph.D. candidates who are capable of assisting with instruction in introductory general psychology.

ELEMENTARY EDUCATION . . . Open to persons qualified to assist with the preparation of elementary school teachers.

*HOME ECONOMICS EDUCATION** . . . *Teaching, Research, and Counseling Service Assistantships.* Available to experienced high school or college teachers of home economics with background in home economics. (For complete description, see *Announcement of the College of Home Economics.*)

COUNSELING . . . Open to persons interested in college counseling, admissions, orientation, placement. Desirable background: child development and family relationships; general home economics, education, psychology. Attached to Counseling Service, College of Home Economics.

GRADUATE PROGRAM IN STUDENT PERSONNEL ADMINISTRATION . . . Two-year assistantships open to candidates for the Master's degree whose major is student personnel administration. Graduate assistants serve as staff in one of the University dormitories and in the second year assume additional responsibilities in one of the University's student personnel offices.

* Tuition in the Graduate School is waived.

† Tuition is waived if degree is taken in the state-supported division.

INTER-UNIVERSITY TEACHER EDUCATION PROJECT . . . Open to candidates for the doctorate who are qualified to assist in an experimental program involving independent professional study and internship in teaching centers. Supported by the Ford Foundation.

*JUNIOR HIGH SCHOOL PROJECT** . . . *Assistantships.* Open to persons qualified to assist with the project in junior high school teacher and in-service education. Supported by the Ford Foundation.

*SCIENCE EDUCATION ** . . . For majors in science teaching, nature study, or conservation education.

SECONDARY EDUCATION . . . *Secondary School Teacher Education Assistantship.* Open to a person with a Master's degree and high school teaching experience, to assist in the supervision of student teaching, counseling with student teachers, and seminar discussion.

TESTING SERVICE BUREAU . . . Open to doctoral candidates who are qualified to assist in testing programs.

*GENERAL TEACHING ** . . . Open to candidates for the doctorate who are enrolled in the Department of Rural Education.

*COLLEGE READING AND STUDY SKILLS CENTER ASSISTANTSHIP ** . . . For a doctoral student who desires to learn the principles of developmental reading and study skills. Teaching experience at the college level is gained by teaching college reading and study skills to small sections of selected Cornell students.

RESIDENT ASSISTANTSHIPS IN UNIVERSITY DORMITORIES . . . Thirty available to single men and women and married women majoring in any area. Stipend includes room, a cash award, and board (for women).

Fellowships and Scholarships

Limited scholarship aid is available to graduate students studying in major subjects where the higher tuition is required. Students interested in tuition differential scholarships should talk with faculty members or with the Office of the School of Education. Students are advised to consult the Announcements of the Graduate School and of the several schools and colleges for listings of other scholarships and fellowships.

*NDEA FELLOWSHIPS ** . . . Designed to attract and prepare scholars for college teaching in the United States in the fields of history, philosophy, sociology, and/or comparative education. Fellows must be enrolled in a full time course of study leading to the doctorate; teaching experience in public schools is desirable.

EDUCATIONAL ADMINISTRATION . . . *Julian E. and Veta S. Butterworth Award.* Given for outstanding research in the administration of public schools in rural areas (as defined in New York State): \$200.

SCIENCE EDUCATION . . . *Anna B. Comstock Scholarship.* Available to graduate students in nature study: \$150 plus tuition.

* Tuition in the Graduate School is waived.

E. Laurence Palmer Scholarship. Awarded annually to a graduate student who, through interest and activity, has demonstrated promise in the field of conservation education: \$50.

EDWARD A. SHELDON SCHOLARSHIP FOR WOMEN . . . For a qualified woman who is preparing to teach and who needs this assistance: \$120.

Completed applications must be received by March 1. Appointments will be announced by April 15.

JUNIOR HIGH SCHOOL INTERNSHIPS . . . Open to those completing or having completed an undergraduate program with a major in English, the social sciences, mathematics or sciences, and planning to combine work toward the Master's degree with preparation for junior high school teaching: \$1500 each.

Completed applications must be received by June 1. Appointments will be announced by July 1. (See Special Programs and Services, page 23.)

INTER-UNIVERSITY TEACHER EDUCATION INTERNSHIPS . . . To be awarded to undergraduates and fifth-year students selected for internships in high school teaching of agriculture, English, home economics, and social studies, as part of the four-university projects.

SPECIAL PROGRAMS AND SERVICES

ELEMENTARY EDUCATION

THE PREPARATION of elementary school teachers is offered only at the graduate level in a fifth year of professional work for those who have a baccalaureate degree from an approved college and who now wish to enter the teaching profession. Students completing this program are eligible for certification to teach in the elementary school, first through the sixth grade, common branch subjects, in New York State and in most other states. It is also possible to complete the requirements for the Master of Education degree at this time. The major concentration of subjects is within the state-supported colleges; limited tuition scholarships are available to selected, well-qualified candidates.

Men and women who have the essential qualifications for graduate work and for elementary teaching may apply for admission. Further information may be obtained from Professor H. Wardeberg, 110 Stone Hall.

EDUCATIONAL PLACEMENT BUREAU

The Bureau is the central office of permanent record and placement for qualified Cornellians from *all* departments of the University who wish to secure professional positions in elementary schools, secondary schools, or colleges. With the Bureau's assistance, Cornellians are regularly placed as teachers, guidance counselors, student personnel workers, supervisors, school administrators, and research workers. Requests are received throughout the year from public schools, private schools, junior colleges, technical institutes, colleges, and universities. On the college level the Bureau's contacts are nation-wide.

Services provided include a permanent file of credentials, available throughout each registrant's professional career, and up-to-date information concerning current positions, salary ranges, certification requirements in each state, and placement trends and demands. Detailed information pertaining to all accredited colleges, universities, junior colleges, and private schools in the country is available for reference.

All Cornellians qualified and interested in school or college positions are invited to register with this office well in advance of the completion of their training. Eligibility for registration in the Bureau is dependent on enrollment in or completion of a regular Cornell program. Credentials containing comprehensive information as to the personal and educational qualifications and experience of each registrant are compiled in conformity with standards established by the National Institutional Teacher Placement Association. With the cooperation of the registrant, this record is kept up to date at all times and is available to any educational institution or qualified official upon request. Heads of departments and professors are invited to use this service in placing their graduates.

The Bureau is located at 320 Wait Avenue, Cornell University.

EXTRAMURAL COURSES

Courses are available through the Division of Summer Session and Extramural Courses to students interested in part-time study. These include the regularly scheduled on-campus offerings for students who can commute to the campus as well as courses in off-campus centers located to suit the convenience of a sufficient number of students to warrant the offering. Graduate credit may be earned in these courses. The credit is recorded in the Registrar's Office the same as for full-time students. A candidate for an advanced degree in Cornell University may have such credit applied toward requirements for the degree on recommendation of his Special Committee. Candidates for degrees in other institutions should be guided by the regulations in those institutions.

Residence credit toward advanced degrees in Cornell University may be earned through extramural registration as follows:

1. At the discretion of the student's Special Committee, fifteen credit hours of graduate study earned on campus and/or in off-campus centers may be accepted as one residence unit in fulfillment of the requirements for the Master's degree. For the M.Ed. degree the maximum number of hours is 18, equivalent to one and one-fifth residence units. Two residence units may be earned in this manner by candidates for the doctorate.

2. Credit hours may be accumulated to make a block of six hours or the equivalent of two-fifths of a residence unit, the smallest fraction that will be recorded by the Graduate School toward fulfillment of the residence requirement for a degree. However, when a full unit of residence credit is earned through extramural registration, the last three of the fifteen required hours will be counted.

3. The manner of satisfying the remainder of the residence requirement for a degree varies according to the degree. Students should consult the statement of residence requirements for the particular degree in question.

Students who wish to register extramurally should apply for information to the Director of the Division of Summer Session and Extramural Courses, 115 Day Hall.

OFFICE OF EDUCATIONAL FIELD SERVICES AND RESEARCH

This office facilitates and coordinates those services which individuals and groups within the faculty of the University, and particularly of the School of Education, can offer to schools in assisting them to solve their problems and improve their programs. Specialists are available or can be secured to conduct surveys and special studies and to provide consultant services regarding goals and philosophy, curriculum and programs, administration, pupil evaluation, pupil personnel services, in-service education of teachers, and other problem areas.

On-campus courses and graduate studies benefit from the information and experience gained in field studies. In addition, the Office assists faculty members and graduate students in making arrangements for research activities in the schools.

A conference may be arranged on campus without fee to enable school board members and administrators to discuss with faculty members studies in which their school district is interested. If the district prefers, the Coordinator will

visit the school district for a preliminary explanation and discussion of services, problems, and recommended studies. Agreements or contracts are then concluded for the provision of the desired services.

Further information may be obtained from:

Professor Mauritz Johnson, Jr., Coordinator
Office of Educational Field Services and Research
320 Wait Avenue, Cornell University
Ithaca, New York
Telephone: Area Code 607, AR5-2307

GRADUATE PROGRAM IN STUDENT PERSONNEL ADMINISTRATION

Recognizing the growing need for professional student personnel workers in American colleges and universities, Cornell's School of Education, in cooperation with the Office of the Dean of Students, has developed a graduate program in student personnel administration. This is a two-year work-study program leading to the Master of Arts degree. Six to eight assistantships are awarded annually, with each receiving a yearly stipend of tuition (one-half residence unit per semester), room and board, student fees, and a cash award of \$600.

In his first year, the student is assigned to a staff-level position in the men's or women's residence halls with a work load equivalent to thirty clock hours per week. The student's work is primarily concerned with the residence program and will be directed by a Head Resident and/or the directors of the men's and women's residence programs.

In the second year the work load in the residence units is reduced to the equivalent of twenty clock hours per week. The student is also assigned to one of the student personnel agencies (i.e., Office of the Dean of Students, C.U.R.W., Willard Straight, International Student Office, etc.) for ten hours of work per week at the staff level. Immediate supervision here will be by the head of the agency or a designated staff member.

Both men and women are admitted to the graduate program in Student Personnel Administration. Preference will be given to those who show a strong undergraduate academic background with some study in the behavioral sciences, indicate above-average academic ability as assessed by the Miller Analogies Test or the Graduate Record Examination, possess skill in interpersonal relationships, present strong recommendations from both teaching and administrative faculty under whom they have worked, and are articulate in developing their reasons for undertaking the study of Student Personnel Administration.

Further information may be obtained by writing to Director, Graduate Program in Student Personnel Administration, 141 Day Hall, Cornell University, Ithaca, New York.

JUNIOR HIGH SCHOOL PROJECT IN TEACHER AND IN-SERVICE EDUCATION, 1960-1967

Cornell University, through its School of Education, is engaged in a special project, financed by a grant from the Ford Foundation, which enables graduates

of liberal arts colleges to prepare for junior high school teaching during a fifth year of study and internship. During the 1964-1965 year each student accepted in the program will be awarded a stipend sufficient to cover tuition costs and fees and to provide \$1000 toward living costs.

Students will be admitted on the basis of the scope and quality of their undergraduate education, their strength in the subject proposed for teaching, and their interest in and aptitude for teaching in secondary schools. The program provides the opportunity to prepare for teaching while earning a Master's degree. The four junior high school subjects for which preparation may be made are English, social studies, mathematics, and science. Students may carry a program of graduate study in education and the teaching subject during the fall semester, serve as full time interns in the junior high schools of the region during the spring term, and return to campus for a summer term of study and preparation of a thesis, or they may begin with a summer session, teach in the fall, and engage in full time study the following spring. February entrance is also possible.

A number of school systems in the region are cooperating with Cornell University in this venture, accepting interns, and working with the University staff in teacher education, curriculum and teaching innovations, and research projects. The Project brings together in teacher education the resources of Cornell's departments in education and the subject fields with staffs from the neighboring public schools.

Graduates of some fifty different liberal arts colleges throughout the country have been interns with the Project since its inception. Students will be admitted to the Project each year through 1966, and up to thirty-two students may be awarded stipends each year. Further information may be obtained by writing to Director, Junior High School Project, School of Education, 105 Stone Hall, Cornell University, Ithaca, New York.

PROJECT I, EXPERIMENTAL PROGRAM FOR THE PREPARATION OF SECONDARY SCHOOL TEACHERS, 1961-1966

Cornell University, in cooperation with the Universities of Buffalo, Rochester, and Syracuse, is undertaking an experimental program in the preparation of secondary school teachers. A group of students in the junior, senior, and fifth years will be selected on the basis of scholastic ability and potential for teaching to receive a new kind of professional training. For these students, formal courses in education will be replaced by independent study, tutorial and honors work, or blocked studies. Emphasis will be given to self-study, a close relation of professional studies with allied disciplines, the waiving of unnecessary requirements, and the introduction of maximum rigor and vitality in the professional training. Following the study of education, students will be placed as interns in teaching centers located in selected school systems in the vicinity of the four university campuses. It is expected that the new programs of training will meet certification requirements for New York State secondary school teaching.

During 1963-1964 and the ensuing years of the project, Cornell will carry on programs for selected groups of students wishing to prepare themselves for secondary school teaching in agriculture, English, home economics, and social studies. Cornell undergraduates interested in applying for the program in one

of these fields should contact School of Education advisers in agriculture, English, home economics, or social studies teaching, or Professor L. B. Hixon, Executive Secretary of the Project, 112 Stone Hall.

The teacher education projects are supported by a grant from the Ford Foundation to the four universities. Financial aid to students in the programs will be available in the form of stipends during the graduate year of study.

For further details of the teacher-training, research, and in-service instructional features of this project, interested persons may contact Professor Hixon or Dean F. H. Stutz, 101 Stone Hall.

Professor William L. Irvine, coordinator for the four universities, may be contacted at 320 Wait Avenue.

PROJECT II, PROGRAM FOR STUDY AND DEMONSTRATION OF THE INTERNSHIP IN EDUCATIONAL ADMINISTRATION, 1961-1966

Cornell University, in cooperation with the universities of Buffalo, Rochester, and Syracuse, is undertaking a six-year program for the study and demonstration of the internship in educational administration. Selected doctoral candidates in educational administration from each university will be offered a special program of summer study, and assigned as interns in administration in selected school systems in New York State. During the internship period the student will be fully employed in the school system, will be given a variety of experiences under supervision, and will receive a salary. The four universities will undertake jointly studies of the several aspects of administrative training including the internship experience.

Students interested in Cornell's administrative internship program are asked to contact Professor D. J. McCarty, Coordinator of the Project, 320 Wait Avenue, or Dean F. H. Stutz, 101 Stone Hall.

The administrative intern program is supported by a grant from the Ford Foundation to the four universities. Professor William L. Irvine, at 320 Wait Avenue, is coordinator for the four universities.

SOUTHERN TIER SCHOOL BOARD INSTITUTE

The School of Education of Cornell University, in cooperation with the New York State School Boards Association and local school boards in the Southern Tier counties of New York State, sponsors an annual series of institute meetings.

The four dinner meetings and sessions are held on the Cornell campus and are open to all members of the boards of education which belong to the institute, to members of their district administrative staffs, and to their guests. The topics for these meetings are selected by the participating board members. Outstanding speakers, panel discussions, and other techniques are utilized in presenting the selected topics for each meeting. Small group discussions follow the initial presentation. Each meeting concludes with a series of questions formulated by the several discussion groups and directed to the speakers of the evening.

Membership in the institute is open to all boards of education in the Southern Tier counties of New York State. To defray program costs and other expenses, a membership fee is charged which is based on the size of the school system. The

institute is guided, in part, by a steering committee of school board members. Two issues of a newsletter are prepared for the membership each year.

For several years the institute has contributed to the support of a graduate assistantship in the School of Education. A member of the faculty serves as the coordinator of the institute and is assisted by the graduate student. Further information may be obtained from the School of Education.

SUMMER SESSION

The Summer Session, through its Summer School and other sessions, offers academic instruction for both graduates and undergraduates by members of the faculties of the Graduate School, of the Colleges of Arts and Sciences, Engineering, Architecture, Agriculture, and Home Economics, and of the Schools of Education, Industrial and Labor Relations, and Hotel Administration.

This unification of the curricula and faculties of the several schools and colleges makes possible the adaptation of academic work to the special needs of summer students. Undergraduate courses are equivalent to required and elective collegiate courses leading to the baccalaureate. Advanced courses, seminars, and informal study, treating topics of concern to students with special interests, are available. The needs of teachers are met not only in the workshops, seminars, and professional courses in education, but also in departmental courses. A number of unit programs and special courses are offered for professional workers other than teachers.

All necessary facilities of the University are available to students registered in the Summer Session: libraries, classrooms, and laboratories; residence halls, dining rooms, and cafeterias; health services and medical care; counseling services; student union, chapel, playing fields, and recreational areas.

The Summer Session's purpose is to place the facilities of the University at the disposal of persons who can use them to good advantage and for serious purposes during the summer period.

The *Announcement of the Summer School* and application forms for admission are available from the Director of the Summer Session, 115 Day Hall. A student planning to become a candidate for an advanced degree from Cornell University should apply for admission not only to the Director of the Summer Session but also to the Dean of the Graduate School.

Registration for the six-week Summer School in 1964 will take place July 1, and classes will begin July 2. The session ends August 14.

UNIVERSITY TESTING AND SERVICE BUREAU

The Bureau is designed to assist with research related to a variety of educational problems. These may be in such areas as curriculum planning, testing and evaluation, administration and supervision, personnel management, youth adjustment and counseling. Assistance is also given in the solution of statistical problems and in the development and scoring of tests. These services are available to colleges, to departments of the University, and to public schools. A nominal fee is charged the public schools for the scoring of tests.

The Bureau maintains an educational and vocational testing service for Cornell students referred by the Educational-Vocational Guidance Office, by the counselors of the colleges and schools, or by the Dean of Students.

Numerous national tests are administered, such as the Miller Analogies Test, Minnesota Engineering Analogies Test, Graduate Record Examination, Admission Test for Graduate Study in Business, and National Teacher Examinations. This service is especially helpful to individuals who seek admission to universities that require such test scores, but departments of the University may also make use of this service for research in cooperation with the testing agency.

The Bureau administers the language examinations for the Graduate School of the University three times a year and is responsible for the freshman placement examinations each fall.

Other services include the maintenance of teaching aids for use by the staff in the preparation of teachers, an extensive library of psychological and educational tests, and a small selected library of technical books dealing with research in education and psychology. There are many opportunities for graduate students in education to obtain practical experience in the various activities of the Bureau as part of their programs of study. Arrangements for this are made through the Director of the Bureau and the student's advisory committee.

DESCRIPTION OF COURSES

A new course numbering system has been adopted for the School of Education and the Department of Rural Education, effective with the academic year of 1964-1965. Courses may be identified as follows: 100-199, introductory courses, primarily for freshmen and sophomores; 200-299, intermediate courses, primarily for underclassmen; 300-399, advanced courses, primarily for juniors and seniors; 400-499, primarily for seniors and graduate students; 500-599, primarily for graduate students; 600-699, seminars.

ADMINISTRATION AND SUPERVISION

R.E. 561. THEORY AND PRACTICE OF ADMINISTRATION. Fall term. Credit two or four hours. S 9-10:30, 11-12:30. Mr. McCARTY.

A basic course in the theory and processes common to a variety of administrative positions both within the school system and elsewhere. Both the science and the art of administration are examined. Theory is employed in group analysis of case studies. Those preparing for the position of supervisor, principal, or superintendent should enroll for four credits; others may take the first session for two credits.

[R.E. 562. THE SECONDARY SCHOOL PRINCIPALSHIP. Spring term. Credit two hours. Given in alternate years. Mr. M. JOHNSON.] Not given in 1964-1965.

The responsibilities of the secondary school principal within the school building. Special attention will be given to the problems of the six-year high school.

R.E. 563. ELEMENTARY SCHOOL PRINCIPALSHIP. Spring term. Credit two hours. Given in alternate years. Th 4-6 and one hour to be arranged. Mr. PIERCE.

Systematic treatment and discussion of problems of administration of staff, pupils, finances and plant; deals with the responsibilities of the principal in his role as elementary school administrator.

R.E. 564. SCHOOL FINANCE AND FACILITIES. Fall term. Credit three hours. Prerequisite, 561 or equivalent. T 4:15-5:45, and one hour to be arranged. Mr. PIERCE.

Typical problems: How local school funds are levied, collected, and disbursed; budget making; bonding; state funds and their distribution; planning, utilization, and upkeep of school facilities.

R.E. 565. PRINCIPLES AND PROCEDURES IN SUPERVISION. Spring term. Credit three hours. M W F 11. Miss WARDEBERG.

A basic course in the nature and scope of supervision; fundamental principles and various procedures will be considered. Open to those already in supervisory positions, either in school work or elsewhere, and experienced persons aspiring to become supervisors.

Ed. 567. SCHOOL LAW FOR ADMINISTRATORS AND TEACHERS. Fall term. Credit three hours. W 4-6 and one hour to be arranged. Mr. HIXON.

A study of school law with particular emphasis on New York State legislation, court decisions, opinions, and regulations which affect the schools of the state.

R.E. 569. PERSONNEL ADMINISTRATION IN EDUCATIONAL INSTITUTIONS. Fall term. Credit three hours. M 4:30-6:30 and one hour to be arranged. Mr. HILLS.

Designed to provide an introduction to modern psychological and sociological perspectives of personnel administration. Three purposes are paramount: (1) to acquaint the student with a variety of ways of conceiving the problems of personnel administration; (2) to acquaint the student with relevant research; and, (3) to develop some facility in the analysis of conceptual schemes and research projects.

R.E. 668. SEMINAR IN EDUCATIONAL ADMINISTRATION. Spring term. Credit three hours. M 4:30-6:30 and one hour to be arranged. Prerequisites, R.E. 569 or R.E. 561 or consent of instructors. Messrs. HILLS and McCARTY.

Planned for advanced students in administration. Major emphasis to be placed on the analysis of administrative theory and research from business, public, hospital, and industrial, as well as educational administration.

AGRICULTURAL EDUCATION

R.E. 331. INTRODUCTION TO TEACHING AGRICULTURE. Spring term. Credit one hour. Required of juniors and others entering the directed teaching program in the senior or following year. M 2-4:30. Mr. DRAKE. An introduction to the origin, development, objectives, course of study, individual farming programs, and method of teaching agriculture in secondary schools.

R.E. 332. METHODS, MATERIALS, AND DIRECTED PRACTICE IN TEACHING AGRICULTURE IN THE SECONDARY SCHOOL. Fall term. Credit nine hours. Staff in agricultural education.

Directed participation in off-campus centers in the specific and related problems of teaching agriculture on the junior and senior high school levels, to include adjustment in the school and community; evaluation of area resources, materials of instruction, and school facilities; organization and development of local courses of study; launching and directing supervised farming programs; planning for and teaching all-day classes; advising Future Farmers chapters; and other problems relating to development of a balanced program for vocational education in agriculture in a local area.

R.E. 433. SPECIAL PROBLEMS IN AGRICULTURE. Fall or spring term. Credit one or two hours. Graduate and undergraduate. W 12. Mr. BAIL and staff.

The purpose is to provide students an opportunity to study individually or as a group selected problems in agricultural education to meet the particular needs of the students.

R.E. 434. ORGANIZATION AND DIRECTION OF YOUNG FARMER PROGRAMS. Fall term. Credit three hours. Mr. CUSHMAN. Emphasis will be placed on solving the problems encountered by teachers of agriculture in such phases of the young farmer program as making arrangements to have a program, determining instructional needs and planning programs of instruction, teaching young farmers in groups, giving individual on-farm instruction, organizing and advising the local young farmer association, and evaluating the young farmer program.

[R.E. 531. SUPERVISION IN AGRICULTURAL EDUCATION. Fall term. Credit two hours. Given in alternate years. Open to students with experience in teaching agriculture, or by permission. Mr. BAIL.] Not given in 1964-1965.

The function of supervision, program plan-

ning, and supervisory techniques as applied to state programs in agricultural education.

R.E. 532. ADVANCED METHODS AND MATERIALS OF TEACHING AGRICULTURE. Fall term. Credit two or three hours. M F 2-3:30. Mr. TOM.

Consideration is given to an analysis of selected teaching techniques and to the selection, preparation, and use of instructional materials in agriculture.

R.E. 533. PLANNING COURSES OF STUDY AND PROGRAMS IN AGRICULTURE. Spring term. Credit two or three hours. M F 2-3:30. Mr. HILL.

Guiding principles, objectives, and sources of information will be developed for planning the courses of study and teaching calendar. Consideration will be given to principles, meaning, and function of farming programs and how they are planned and used as a means of instruction.

R.E. 534. EDUCATION FOR LEADERSHIP OF FARM YOUTH AND ADULT GROUPS. Fall term. Credit two hours. Th 2-4. Mr. CUSHMAN.

Designed for leaders in the field of agricultural education who are responsible for organizing programs. A consideration of the principles involved in organizing and conducting out-of-school programs for young and adult farmers.

R.E. 535. PLANNING AND CONDUCTING PROGRAMS OF TEACHER PREPARATION IN AGRICULTURE. Fall term. Credit two hours. Offered in alternate years. M 3:45-5:45. Mr. HILL.

Open to persons with teaching experience in agriculture who are preparing for or engaged in the preparation of teachers or in related educational service.

R.E. 536. THE ORGANIZATION AND ADMINISTRATION OF AGRICULTURAL EDUCATION. Spring term. Credit two hours. Given in alternate years. W 2-4. Mr. CUSHMAN. Designed for teachers, high school principals, teacher trainers, supervisors, and others who are responsible for the administration of agricultural programs or who wish to qualify for this responsibility. Emphasis will be placed on interpreting the vocational acts and on problems of administration at the local and state level.

R.E. 538. TEACHING GENERAL AGRICULTURE IN THE SECONDARY SCHOOL. Spring term. Credit two hours. F 4:15-6. Mr. TOM.

The organization, purpose, and content of

courses in agriculture in junior and senior high schools to serve those who elect to study agriculture for its general educational values in preparation for rural living.

[R.E. 539. **EVALUATING PROGRAMS OF AGRICULTURAL EDUCATION.** Spring term. Credit two hours. Given in alternate years. Open to students with experience in teaching agriculture or by permission. Mr. DRAKE.] Not given in 1964-1965. Students will study objectives and evaluative criteria and develop criteria and procedures

for evaluation of programs of agricultural education in the secondary schools.

R.E. 630. **SEMINAR IN AGRICULTURAL EDUCATION.** Spring term. Credit one hour. W 4:15-6. Mr. TOM.

Recommended for Master's degree candidates who have had teaching experience and doctoral candidates with majors and minors in agricultural education. The seminar will be primarily centered in current problems and research in the field not included in other course work.

EDUCATIONAL PSYCHOLOGY AND MEASUREMENT

R.E. 110. **PSYCHOLOGY.** Fall or spring term. Credit three hours. Recommended for freshmen and sophomores only. May not be taken for credit by students who have had Psychology 101 or equivalent. Two lectures plus one discussion section each week. Lectures M W 10. Plant Science 233. Discussion sections Th 8, 9, 10, 11, F 8, 9, 10, 11, 12. Mr. ———. A study of topics in psychology such as learning, perception, motivation, emotion, individual differences, and personal-social relationships.

R.E. 411. **EDUCATIONAL PSYCHOLOGY.** Fall or spring term. Credit three hours. Prerequisite, an introductory course in psychology. Open to juniors or seniors; it is advisable for students to have had practice teaching. Not open to freshmen or to those who have taken R.E. 417 or Child Development and Family Relationships 315. Spring term limited to students enrolled in the special block-time teacher preparation program. Fall, lectures, M W F 9. Spring, blocked time M W F 9-11. Mr. GLOCK. (Equivalent of Psych. 103.) Consideration of the outstanding facts and principles of psychology bearing upon classroom problems.

Ed. 411H. **EDUCATIONAL PSYCHOLOGY.** Fall or spring term. Credit one to four hours. Hours as arranged. Mr. RIPLEE. (See page 35 for description.)

R.E. 417. **PSYCHOLOGY OF ADOLESCENCE.** Spring term. Credit two hours. Designed for teachers and prospective teachers; others only by permission of instructor. Not open to freshmen or sophomores. Prerequisite, a course in general psychology. T 2-4. Mr. RIPLEE. A survey of the nature of adolescent growth and development, with emphasis on some of the causal factors pertaining to adolescent behavior.

R.E. 451. **EDUCATIONAL MEASUREMENT.** Spring term. Credit three hours. Permission of the instructor required. Mr. MILLMAN. A study of the construction of achievement tests and the use of aptitude tests, achievement tests, and other measuring instruments in the classification and guidance of pupils and improvement of instruction.

R.E. 453. **INTRODUCTION TO EDUCATIONAL STATISTICS.** Fall term. Credit three hours. T Th 8-10. Mr. MILLMAN. A study of common statistical procedures encountered in educational literature and research. Includes the computation and interpretation of descriptive measures and tests of significance.

R.E. 454. **STATISTICAL INSTRUMENTS IN EDUCATION.** Spring term. Credit three hours. Prerequisite, R.E. 453 or permission of the instructor. T Th 8-10. Mr. MILLMAN. A study of the multiple regression, factor analysis, analysis of variance and covariance and other statistical procedures useful in educational research.

R.E. 511. **EDUCATIONAL PSYCHOLOGY.** Fall term. Credit three hours. Permission of the instructor required. M W F 11-12:30. Mr. GLOCK.

A basic course in educational psychology for graduate students. Designed especially for students in the Junior High School Project, elementary education, and extension education. Other interested and qualified students may enroll. Discussion sections will be organized for special interest groups.

Ed. 555. **USE AND INTERPRETATION OF TESTS IN GUIDANCE AND PERSONNEL ADMINISTRATION.** Fall term. Credit three hours. Th 4-6. Laboratory, third hour to be arranged. Mr. ANDRUS.

Open to students in guidance or personnel administration and to classroom teachers who expect to work with standardized group tests. Deals with the historical development, use, and interpretation of aptitude tests as a basis for guidance and selection in public schools, colleges, and/or industry. Designed to meet the New York State certification for guidance counselors.

Ed. 618. SEMINAR IN EDUCATIONAL PSYCHOLOGY. Fall and spring terms. Credit three hours. M W 2-3:30. Mr. RIPLE and staff.

Emphasis on theoretical considerations of various areas in educational psychology. Primarily for doctoral students. Not designed for project students earning a Master's degree.

R.E. 679. SEMINAR IN EDUCATIONAL RESEARCH. Spring term. Credit two hours. Primarily for doctoral students. Admission by consent. Th 4-6. Messrs. ENNIS, GOWIN, and MILLMAN. (See page 33 for description.)

Psych. 103. EDUCATIONAL PSYCHOLOGY. Spring term. Credit three hours. M W F 9. Prerequisite, an introductory course in psychology. Mr. ZIMMERMAN. (Equivalent of R.E. 411.)

The major facts and principles of psychology bearing on educational practice and theory. Human learning and abilities will be stressed. Recent advances in the area of programmed

learning and auto-instructional techniques will be discussed in the light of contemporary learning theory.

Each student will construct and test an auto-instructional program in his area of special interest.

Psych. 401. PSYCHOLOGICAL TESTING I. Fall term. Credit four hours. Prerequisite: knowledge of elementary statistics and algebra. T Th S 11. Mr. DARLINGTON.

Theory of the construction, evaluation, and interpretation of mental tests, with emphasis on the statistical and logical problems involved. A brief survey of the major tests now in use will also be included, but there will be little or no training in test administration.

Psych. 402. PSYCHOLOGICAL TESTING II. Spring term. Credit four hours. Prerequisite: Psych. 401 or equivalent. T Th S 11. Mr. DARLINGTON.

A more advanced treatment of the theoretical topics dealt with in Psych. 401.

Psych. 478. RESEARCH METHODS IN PSYCHOLOGY—PERSONALITY AND CLINICAL. Spring term. Credit four hours. M W F 11. Mr. DARLINGTON.

H.E. Ed. 459. EVALUATION. Fall term. Credit three hours. M Th 1-2:30. Van Rensselaer, East Wing 5. Mrs. NELSON. (See page 40 for description.)

ELEMENTARY EDUCATION

R.E. 407. THE TEACHING OF ELEMENTARY SCHOOL SCIENCE. Fall term. Credit three hours. Registration by permission. Lecture, W 1:40; practical exercises, W 3-4:30. Stone 7. Mr. ROCKCASTLE. (See page 37 for description.)

R.E. 546. TEACHING READING AND LANGUAGE SKILLS. Fall term. Credit three hours. M W F 10. Miss WARDEBERG.

Materials and techniques in teaching the language arts in the elementary school; special emphasis on the teaching of reading. Open only to graduate students and those in registered programs.

R.E. 540. THE ART OF TEACHING. Spring term. Credit twelve hours. Daily 8-4 and other hours to be arranged. Students may register only with the consent of the instructor. Miss WARDEBERG.

For students enrolled in the fifth year program in elementary education. Students will be placed in elementary classrooms in Ithaca and surrounding communities for directed student teaching.

R.E. 547. SEMINAR IN ELEMENTARY EDUCATION. Fall term. Credit four hours. T Th 1-2. Spring term. Credit three hours. Times and room to be arranged. Miss WARDEBERG.

Fall term includes: September experience (beginning September 8, 1964); materials and methods in mathematics, social studies and special curricular areas; organization of the elementary school. Spring term includes: a problems seminar based on the student teaching experience. For students enrolled in the Art of Teaching.

EXTENSION, ADULT, AND HIGHER EDUCATION

R.E. 523. ORGANIZATION, ADMINISTRATION AND SUPERVISION IN THE CO-OPERATIVE EXTENSION SERVICE. Fall term. Credit two hours. For graduate students majoring or minoring in extension education and others interested in broadening their knowledge of Extension Service as an educational institution. W 2-4. Mr. BRUCE.

Study and discussion include an analysis of current policy, objectives, organization, staffing, financing, program content, procedures and the over-all role of extension service in relation to current developments and trends affecting its operation.

R.E. 524. PROGRAM BUILDING IN EXTENSION EDUCATION. Fall term. Credit two hours. T 2-3:30. For graduate students in extension education and others interested in adult education. Mr. LEAGANS.

A study of the basic problems, principles, and procedures in the process of extension program building in both agriculture and homemaking.

R.E. 525. TEACHING AND COMMUNICATION IN EXTENSION EDUCATION. Spring term. Credit two hours. For graduate students in extension education and related fields who are concerned with teaching people in out-of-school situations. T 2-3:30. Mr. LEAGANS.

The principles and processes of extension teaching and communication are analyzed and related to the problems of selecting, combining, and effectively using extension teaching methods for disseminating useful information and promoting its use.

[**R.E. 621. SPECIAL STUDIES IN EXTENSION EDUCATION.** Fall term. Credit two hours. Offered only if 8 or more students enroll. Lectures, individual time to be arranged. Mr. LEAGANS.] Not offered in 1964-1965.

The objective is to provide assistance in thesis preparation to graduate students in extension education. The course will consist of three parts: (1) exploration of potential fields and

specific delineation of the thesis area; (2) setting up a plan of thesis organization based on research techniques and methods, including establishment of objectives or hypotheses, preparation of questionnaires, or other research instruments, the collection, analysis, and interpretation of data in line with the objectives; and (3) preparation of the thesis, its writing, editing, revising, and styling.

R.E. 627. SEMINAR: COMPARATIVE EXTENSION EDUCATION. Fall and spring terms. Credit two hours each term. Th 2-4. Mr. LEAGANS and staff.

An analysis of extension education and community development programs in different cultures, in different circumstances of economic, political, and social development, and in different agricultural resource environments. The central objective is to help students develop a philosophy, a background of knowledge, and professional skill that will enable them to initiate, organize, and administer extension and community development programs in other cultures and to provide effective professional leadership for various rural development activities.

R.E. 628. ADVANCED SEMINAR IN EXTENSION EDUCATION. Spring term. Credit two hours. Open to advanced graduate students with experience in extension or related fields or to others with consent of instructor. W 2-4. Mr. BRUCE.

A major area of concern in extension education will be selected in light of the special interests, experience, and fields of concentration of participating students and faculty. Seminar papers will be drawn from within the area chosen.

H.E. Ed. 437. ADULT EDUCATION. Fall term. Credit two or three hours. T 4-5:45, Van Rensselaer East Wing 5. For seniors and graduate students. Miss PATTERSON. (See page 40 for description.)

GENERAL

Ed. 7. COLLEGE READING AND STUDY SKILLS PROGRAM. Twice each term. Non-credit. Program 1 starts at the beginning of fall term; Program 2 directly after Thanksgiving recess; Program 3 at beginning of spring term; and Program 4 directly after spring recess.

M W or T Th 9, 10, 11, 12. Laboratory, two half-hour periods a week to be arranged. The initial fall program is reserved for freshmen. The other three programs are open to all registered students.

Registration takes place in Room 102, ILR Extension Building, during the in-session week preceding the beginning of each program. Mr. PAUK.

Principles and techniques for reading and studying more effectively are explained, demonstrated, and practiced in class. The reading laboratory provides an opportunity for increasing one's rate of reading.

R.E. 499. INFORMAL STUDY IN EDUCATION. Maximum credit, three hours each term. Members of the staff.

This privilege is granted to a qualified junior, senior, or graduate student, when approved by an adviser from the Education staff who is personally responsible for the study. Two purposes are sanctioned: (1) to engage in a study of a problem or topic not covered in a regular course; or (2) to undertake tutorial or honors study of an independent nature in the area of the student's research interests. The program is not designed for study supplementary to a regular course for the purpose of increasing the content and credit allocation of the course.

Ed. 499S. INFORMAL STUDY IN EDUCATION. Maximum credit, three hours each term. Members of the staff. For students with majors in the endowed colleges.

This privilege is granted to a qualified junior, senior, or graduate student when approved by an adviser from the Education staff who is personally responsible for the study. Two purposes are sanctioned: (1) to engage in a study of a problem or topic not covered in a regular course; or (2) to undertake tutorial or honors study of an independent nature in the area of the student's research interests. The program is not designed for study supplementary to a regular course for the purpose of increasing the content and credit allocation of the course.

R.E. 500. SPECIAL STUDIES. Credit as arranged. Members of the staff. Limited to graduate students working on theses or other research projects. Each registration must be approved by a staff member who will assume responsibility for the work.

Ed. 500S. SPECIAL STUDIES. Credit as arranged. Members of the staff. Limited to graduate students with majors in the endowed divisions working on theses or other research projects. Each registration must be approved by a staff member who will assume responsibility for the work.

R.E. 594. COLLEGE TEACHING. Spring term. Without credit. M 7:30 p.m. Members of the University staff.

Designed for those who plan to teach in colleges and universities. Concepts and methods of teaching, organization of subject matter, motivation, learning, testing, grading, and similar problems are treated.

R.E. 599. EDUCATIONAL RESEARCH METHODS. Fall term. Recommended for Master's degree candidates. Either R.E. 599A or R.E. 599B or both may be elected.

A. Lecture. Credit one hour. T 11. Mr. MILLMAN.

A survey, theoretically oriented, of the selection of experimental variables, experimental design, measurement procedures, and the inferential process.

B. Discussion. Credit one hour. No auditing permitted. Th 11. Messrs. R. BRUCE, MILLMAN, and RIPLE.

Discussion sections will be composed of students with like vocational interests. Emphasis will be placed upon practical considerations in the selection of a research topic, planning the research, and the writing of a research proposal or report.

R.E. 600. INTERNSHIP IN EDUCATION. Fall and spring terms. Credit two to six hours as arranged. Members of the faculty.

Opportunity for apprentice or similar practical experience on the graduate level in administration, agricultural education, guidance, personnel administration, supervision, and other types of professional service in education.

R.E. 679. SEMINAR IN EDUCATIONAL RESEARCH. Spring term. Credit two hours. Primarily for doctoral students. Admission by consent. Th 4-6. Messrs. ENNIS, GOWIN, and MILLMAN.

A study of the basic questions of research strategy that lie beneath particular examples of educational research. Such topics as causality, construct validity, operational definitions, and generalizing will be examined. Examples of research to be considered will be chosen by participants and will be either their own research, at whatever stage, or other research.

H.E. Ed. 300. SPECIAL PROBLEMS FOR UNDERGRADUATE STUDENTS. Fall and spring terms. Credit and hours to be arranged. Department staff.

For students recommended by counselors and approved by the head of the department and the instructor in charge for independent, advanced work not otherwise provided in the department or for special arrangement of course work necessitated because of previous training. Students must prepare two copies of a description of the problem they wish to undertake. One, signed by the instructor directing it and the head of the department, must be filed with preregistration materials. The second copy is left with the instructor. The form to be used may be obtained in Room 135.

H.E. Ed. 403. SPECIAL PROBLEMS FOR GRADUATE STUDENTS. Fall and spring terms. Credit and hours to be arranged. Department staff.

For graduate students recommended by their

chairmen and approved by the instructor in charge for independent, advanced work.

H.E. Ed. 407. THESIS AND RESEARCH. Fall and spring terms. Credit and hours to be

arranged. Registration with permission of the chairman of the graduate committee and the instructor. Miss BLACKWELL, Mrs. CARMICHAEL, Miss HELTZEL, Miss MOSER, Mrs. H. Y. NELSON, Misses PATTERSON and RHODES.

GUIDANCE AND PERSONNEL ADMINISTRATION

Ed. 580. STUDENT CULTURE IN THE AMERICAN COLLEGE. Spring term. Credit two hours. T 3-5. Mr. ———. Study of the student culture in the American college with emphasis on current research.

Ed. 581. STUDENT PERSONNEL ADMINISTRATION. Fall term. Prerequisite, consent of the instructor. Credit two hours. Mr. ———. The functions and organization of student personnel administration in higher education with emphasis on the historical development of the area.

R.E. 582. EDUCATIONAL AND VOCATIONAL GUIDANCE. Fall term. Credit two hours. For graduate students only. T 4:15. Mr. NELSON.

Principles and practices of educational and vocational guidance. Historical and theoretical background of the guidance movement; educational, vocational, and community information needed; the study of the individual; group methods; counseling; placement and follow-up; and the organization, administration, and appraisal of guidance programs.

R.E. 583. COUNSELING. Spring term. Credit two hours. For graduate students only. Prerequisite, Courses 555 and 582 or their equivalents. M 4:15-6. Mr. NELSON. Principles and techniques of counseling with individuals concerning various types of educational, vocational, and social adjustment problems. Case studies.

R.E. 584. GROUP TECHNIQUES IN GUIDANCE. Spring term. Credit two hours. W 4:15. Mr. MINK. Methods and materials for presenting educational and occupational information to students. Theory and practice of group guidance, and counseling in a group setting.

R.E. 585. OCCUPATIONAL AND EDUCATIONAL INFORMATION. Fall term. Credit

four hours. Prerequisite, permission of the instructor. T Th 1. Field trips and laboratory on Monday afternoons. Mr. NELSON. Survey and appraisal of occupations and training opportunities; study of sources of educational and vocational information; job analysis; vocational trends. Field trips to places of employment.

Ed. 602. FIELD LABORATORY IN STUDENT PERSONNEL ADMINISTRATION. Either term. Credit and hours to be arranged. Prerequisite, consent of instructor. Mr. ———. Directed project in student personnel administration.

Ed. 681. SEMINAR IN STUDENT PERSONNEL ADMINISTRATION. Spring term. Prerequisite, Education 581 and 580. Credit two hours. An analysis of problems in student personnel administration.

R.E. 689. SUPERVISED PRACTICE IN TESTING AND COUNSELING. Throughout the year; may be entered either term. Credit three hours a term. For advanced graduate students only. Fall term prerequisites, 453, 555, and 583 (or their equivalents) and permission of the instructor. Spring term prerequisites, 453, 555, 583 and 585 (or their equivalents) and permission of the instructor. Fall, Th 4-5; spring, W 9-10. Practicum hours to be arranged. Messrs. MINK and NELSON. During the fall term, emphasis will be placed on the administration, scoring, and interpretation of psychological tests; the practicum will be devoted primarily to individual intelligence testing. During the spring term, observation and supervised experience in counseling will be emphasized. During both terms, practicum experiences will be supplemented by lectures, seminar discussions, case conferences, and assigned readings.

HISTORY, PHILOSOPHY, AND SOCIOLOGY OF EDUCATION

R.E. 470. SOCIAL AND PHILOSOPHICAL FOUNDATIONS OF EDUCATION. Either term. Credit three hours. Open to juniors by consent, seniors, and graduate students. M W

F 10. Special graduate section in the fall, T Th 2-3:30. Messrs. ENNIS and LOWE. A consideration of the problems of providing education in a democracy. The role of the

schools, control of the schools, and the professionalization of teaching will be examined in the light of our social class, economic, political, religious, and value structures. Relevant philosophic insights will be applied.

R.E. 471. LOGIC IN TEACHING. Fall term. Credit three hours. Open to graduates and advanced undergraduates. Consent of instructor required. T Th 4:15-5:45. Mr. ENNIS. A consideration of definition, explanation, proof, problem solving, and the structure of subject matter as they bear upon the work of the classroom teacher.

Ed. 472. PHILOSOPHERS ON EDUCATION. Fall term. Credit three hours. For graduates and advanced undergraduates. Admission by consent only. W 2-4. Miss PEARD. Selected writings of such philosophers as Plato, Descartes, Rousseau, and Dewey will be examined in their own right and for the light they throw on the persistent problems in education.

Ed. 473. CONTEMPORARY PHILOSOPHY OF EDUCATION. Spring term. Credit three hours. T 4-6. Miss PEARD, and Mr. GOWIN. The ideas of pragmatists, humanists, analysts, and existentialists will be examined in relation to the bearing of the ideas on educational thought and practice.

R.E. 545. THE CURRICULUM OF AMERICAN SCHOOLS. Fall term. Credit three hours. Enrollment limited to graduate students, teachers, or other school specialists. M 4-6 and one hour to be arranged. Mr. STUTZ. An examination of curriculum content, principles, and processes viewed in the setting of educational history and the current educa-

tional scene. Students will be expected to relate curriculum theory and trends to their specific problems and needs. A research paper or applied project will be required.

R.E. 574. HISTORY OF EDUCATION IN THE MODERN PERIOD. Spring term. Credit three hours. For graduate students. Seniors admitted with permission of the instructor. M 4-6 and one hour to be arranged. Mr. STUTZ.

An examination of educational thought and practice from the seventeenth century to the present in the setting of general developments in Western Europe and the United States. Principal attention will be given to the educational purposes and systems of France, Germany, the United Kingdom, the USSR, and the United States. A special paper will be required.

Ed. 673. SEMINAR IN JOHN DEWEY'S PHILOSOPHY OF EDUCATION. Spring term. Credit three hours. For graduate students. Consent of instructor required. Prerequisite, prior course in philosophy or philosophy of education. W 4-6. Mr. GOWIN.

Dewey's conceptions of the nature of experience, knowledge, value, and metaphysics will be analyzed, as well as his method of philosophizing. Students will be expected to read widely in Dewey's writings and in the writings of his critics and disciples. Primary aim is a mature, critical understanding and appraisal of Dewey's philosophy, especially as it centers upon education.

R.E. 679. SEMINAR IN EDUCATIONAL RESEARCH. Spring term. Credit two hours. Primarily for doctoral students. Admission by consent. Th 4-6. Messrs. ENNIS, GOWIN, and MILLMAN. (See page 33 for description.)

INTER-UNIVERSITY PROJECT I

INDEPENDENT STUDY AND HONORS PROGRAM

Ed. 411H. EDUCATIONAL PSYCHOLOGY. Fall or spring term. Credit one to four hours. Hours as arranged. Mr. RIPPLE.

Open only to honors students in agricultural education, English, home economics education, and social studies who are registered for independent study and tutorials in their fields. Through a program of independent reading, research activities, and seminars, the students will pursue study of human development, the learning process, motivation, retention and forgetting, transfer, higher mental processes, personal-social organization, individual differences, the social psychology of the classroom, technological and other innovations, evaluation and

measurement, and research methodology as these apply to the task of managing and organizing learning experiences for students so as to bring about desirable behavioral changes. Some of this work is done in connection with the social and philosophical foundations of education and direct observation and experience in the public schools. This work satisfies New York State requirements for certification as a public school teacher. Students register in the semester in which the tutorial and independent study work is to be completed.

Ed. 473H. SOCIAL AND PHILOSOPHICAL FOUNDATIONS OF EDUCATION. Fall or

spring term. Credit one to four hours. Hours to be arranged. Mr. GOWIN.

Open only to honors students in agricultural education, English, home economics education, and social studies, who are registered for independent study and tutorials in their teaching fields. Students are expected to read in the original works of significant thinkers (such as Milton, Rousseau, Dewey, and Freud) to discover alternative views of the nature of man, knowledge, reality, value, and the social order as a foundation for constructing a defensible conception of education in a democracy. Also the generic modes of inquiry found in philosophy, history, and social science will be examined as a foundation for generating reliable knowledge about education and as a basis for the student's essay or thesis. Some of this work is done in connection with psychological foundations of education, and direct observation and experience in the public schools. This work satisfies New York

State requirements for certification as a public school teacher in social and philosophical foundations of education. Students register in the semester in which the tutorial and independent study work is to be completed.

Ed. 499H. SEMINAR IN EDUCATION. Fall term. Credit eight hours. Hours to be arranged. Miss PEARD, Coordinator.

English majors with averages of 80 or higher in their first three terms at Cornell are eligible. Mastery of a reading list during the summer after the sophomore year and enrollment in a seminar in the fall of the junior year are required. The course meets the New York State certification requirements for "eight hours in the social, philosophical, and psychological foundations of educational theory and practice," and is an alternative to the regular eight-hour program: Social Foundations of Education, Educational Psychology, and a two-hour elective in education.

JUNIOR HIGH SCHOOL PROGRAM

Ed. 440E (J). TEACHING ENGLISH IN SECONDARY SCHOOLS. Fall term. Credit two hours. Enrollment limited to students in the Junior High School Project. Hours to be arranged. Messrs. HODGE and VARS.

Special emphasis upon teaching English in the junior high school grades.

R.E. 470. SOCIAL AND PHILOSOPHICAL FOUNDATIONS OF EDUCATION. Either term. Credit three hours. Open to juniors by consent, seniors, and graduate students. M W F 10. Special graduate section in the fall, T Th 2-3:30. Messrs. ENNIS and LOWE. (See page 34 for description.)

R.E. 447. JUNIOR HIGH SCHOOL EDUCATION. Fall term. Credit three hours. Hours to be arranged. Limited to seniors and graduate students. Mr. VARS. (See page 38 for description.)

R.E. 541. INTERNSHIP IN JUNIOR HIGH SCHOOL TEACHING. Fall or spring term. Credit six hours. Designed especially for interns in the Junior High School Project. R.E. 543 must be taken concurrently. Messrs. M.

JOHNSON, VARS, LOWE, MINK, GEISELMAN, M. BRUCE, and HODGE.

Full-time directed teaching experience in a public school throughout the school's fall or spring semester.

R.E. 543. SEMINAR IN JUNIOR HIGH SCHOOL TEACHING. Fall or spring terms. Credit two hours. Hours and places to be arranged. Limited to interns in Junior High School Project. Messrs. M. JOHNSON, VARS, LOWE, MINK, GEISELMAN, M. BRUCE, and HODGE.

Problems arising in the course of intern teaching will be discussed.

R.E. 544. SEMINAR IN JUNIOR HIGH SCHOOL EDUCATION. Spring term. Credit one hour. Prerequisite, R.E. 541, and 543. Open only to interns in Junior High School Project. Hours and place to be arranged. Mr. M. JOHNSON.

Review and analysis of teaching experiences and their implications for professional growth and improvement of educational programs at the junior high school level.

NATURE STUDY, SCIENCE EDUCATION, AND CONSERVATION EDUCATION

R.E. 402. NATURAL HISTORY LITERATURE. Fall term. Credit two hours. Open to juniors, seniors, and graduate students inter-

ested in nature, science, and conservation education. T Th 11. Stone 7. Mr. FISCHER.

A survey of writings in the nature, science,

and conservation education fields, with special attention to outstanding writers and their works, designed for teaching and for leisure time reading.

R.E. 403. NATURAL HISTORY WRITING. Spring term. Credit two hours. Open to juniors, seniors, and graduate students interested in nature, science, and conservation education. T Th 11. Stone 7. Mr. FISCHER.

Designed to improve natural history, science, and conservation writings. Subject matter, sources of information, types of articles, use of illustrations, and outlets for students' articles are covered.

R.E. 407. THE TEACHING OF ELEMENTARY SCHOOL SCIENCE. Fall and spring terms. Credit three hours. Open to seniors and graduate students and juniors by permission. Lecture, W 1:40; practical exercises, W 3-4:30 and one other period to be arranged. Stone 7. Mr. ROCKCASTLE.

The content and methods of elementary-school science and nature study, with field work and laboratory experience useful in classroom and camp. Designed particularly for those who are preparing to teach or supervise elementary science or nature study.

R.E. 409. OUR PHYSICAL ENVIRONMENT. Spring term. Credit three hours. Open to juniors, seniors and graduate students primarily interested in public school teaching. Lecture, W 1:40. Practical exercises, W 3-4:30 and one other period to be arranged. Stone 7. Mr. ROCKCASTLE.

A study of the commonplace machines and materials in our physical environment, and their effectiveness in demonstrating basic scientific principles. Frequent field trips and first-hand examination will be used in studying air, water, soil, light, and sound, as well as some elementary mechanical and electrical devices. Emphasis will be placed on the physical environment as an aid to teaching the physical sciences in the public schools.

R.E. 424-425. FIELD NATURAL HISTORY. Fall or spring term. Credit three hours. Open to juniors, seniors, and graduate students, and to sophomores with instructor's permission. Limited to twenty students a section. Fall term, lecture, Th 10. Stone 7. Spring term, lecture, T 10. Weekly field trip and lecture, T or F 1:40-4:30, will begin with the first meeting. Friday section primarily for those experienced in field biology. Mr. FISCHER. Devoted to studies of local plants and animals, their ecology and their relations to humans. Applications to teaching science and conservation are emphasized. May be taken either term or both terms.

R.E. 428. METHODS OF TEACHING SCIENCE IN SECONDARY SCHOOLS. Fall or spring term. Credit three hours. Prerequisite, Educational Psychology 411 or the equivalent, or concurrent registration. For juniors, seniors, and graduate students. Fall, Th 1:40-4:30 and hours for observation to be arranged. Spring, M or Th, 1:40-4:30. Stone 7. Messrs. JOHNSON, BRUCE, and assistants.

A consideration of methods and materials useful in teaching science in secondary schools. Observation of the work of experienced teachers constitutes an important part of the course.

R.E. 429. PRACTICE IN TEACHING SCIENCE IN SECONDARY SCHOOLS. Fall or spring term. Credit six or twelve hours. Prerequisite, Rural Education 407 or 428 and permission of the instructor. For seniors and graduate students. Hours to be arranged. Stone 7. Mr. BRUCE and assistants.

Supervised practice in teaching science in secondary schools, with frequent conferences on teaching plans and problems.

[R.E. 505. THE TEACHING OF CONSERVATION.] Spring term. Credit two hours. Mr. FISCHER.] Not given in 1964-1965.

Consideration of the principles, materials, and methods of conservation education useful to teachers and others engaged in teaching wise use of the resources of the nation.

R.E. 507. THE TEACHING OF SCIENCE IN SECONDARY SCHOOLS. Fall term. Credit three hours. Registration by permission only. M 1:40-4:30. Stone 7. Mr. JOHNSON and assistant.

A consideration of problems of selection and organization of subject matter, of choice and use of materials, and of methods of teaching sciences at the secondary school level. Observational and special problems are important aspects of this course.

[R.E. 509. THE DEVELOPMENT OF NATURE AND SCIENCE EDUCATION IN THE UNITED STATES.] Fall term. Credit two hours. Messrs. JOHNSON, ROCKCASTLE, and FISCHER.] Not given in 1964-1965.

Studies of the historical development of science teaching, the major personalities and their ideas, and current influences on science course content and methods of teaching.

R.E. 606. RESEARCH IN NATURE STUDY, SCIENCE, AND CONSERVATION EDUCATION. Fall or spring term. Credit one hour. Required of graduate students who major or minor in science education. M 4:30-6. Stone 7. Messrs. JOHNSON, ROCKCASTLE, FISCHER, and BRUCE.

A seminar dealing with special problems.

SECONDARY EDUCATION

Ed. 440A. OBSERVATION AND STUDENT TEACHING. Fall or spring term. Credit six hours. Hours to be arranged. Mr. HIXON, Mrs. OCVIRK, Mr. PFAFF, Mr. TEETER.

For students preparing to teach English, languages, mathematics, social studies, or speech in the secondary schools. (Prospective science teachers, see R.E. 429, page 37.) Opportunities to observe the work of experienced teachers and to do directed teaching in a secondary school are provided. Seminars and student teaching conferences arranged with emphasis on discussion of teaching problems. Students should also enroll in the appropriate special methods course which follows.

Ed. 440E. TEACHING ENGLISH IN SECONDARY SCHOOLS. Fall and spring terms. Credit four hours. Hours to be arranged. Miss PEARD, and Mr. NOVARR.

Taught jointly by the Department of English and the School of Education. Emphasis on the teaching of reading, writing, and language. Undergraduates accepted for the English-teaching program should register in the term immediately prior to that in which their practice teaching is scheduled; all others should see Miss PEARD before registering.

Ed. 440E (J). TEACHING ENGLISH IN SECONDARY SCHOOLS. Fall term. Credit two hours. Enrollment limited to students in the Junior High School Project. Hours to be arranged. Messrs. HODGE and VARS.

Special emphasis upon teaching English in the junior high school grades.

Ed. 440L. TEACHING LANGUAGES IN SECONDARY SCHOOLS. Fall or spring term. Credit three hours. Hours to be arranged. (See staff in Ed. 440A.)

Ed. 440M. TEACHING MATHEMATICS IN SECONDARY SCHOOLS. Fall or spring term. Credit three hours. Hours to be arranged. (See staff in Ed. 440A.)

Ed. 440S. TEACHING SOCIAL STUDIES IN SECONDARY SCHOOLS. Fall or spring term. Credit two or three hours. Two hours credit by consent of instructor. W 4-6. Mr. LOWE.

(Prospective science teachers will take R.E. 428.)

R.E. 444. SEMINAR IN THE TEACHING OF SECONDARY MATHEMATICS. Spring

term. Credit three hours. W 4-6 and one hour to be arranged. Mrs. HOCKETT.

Useful materials and practical methods for effective teaching of mathematics in the junior and senior high school. Attention will be given to research in mathematics education, and to recent proposals for curriculum revision. Special interests of the students will serve as a guide for the further selection of topics.

Educ. 445. THE TEACHING OF READING AND STUDY SKILLS IN THE SECONDARY SCHOOL. Spring term. Limited to seniors and graduate students. Credit two hours. Th 2-3:40. Mr. PAUK.

For all teachers, administrators, and supervisors. The psychology, philosophy, and pertinent research in developmental reading will be explored. Practical teaching methods and sample materials for classroom use will be demonstrated and discussed.

R.E. 447. JUNIOR HIGH SCHOOL EDUCATION. Fall and spring terms. Credit three hours. Limited to seniors and graduate students. Hours to be arranged. Mr. VARS.

Examines educational programs for young adolescents in the light of the history, status, and philosophy of the junior high school. Includes guidance, articulation, exploration, general education programs such as block-time and core, and such recent developments as auto-instruction and team teaching.

R.E. 542. SECONDARY EDUCATION IN THE UNITED STATES. Fall term. Credit three hours. Limited to graduate students. Th 4-6 and one hour to be arranged. Mr. M. JOHNSON. Prerequisite, courses in educational psychology and social foundations of education, or permission of instructor.

Historical background and theoretical considerations relating to such major issues in American secondary education as its purposes, control, scope, organization, standards, and relation to other levels. Prevalent and proposed practices analyzed with a view to reconciling the demands of intellectual integrity and the expanded expectations contemporary society places upon the secondary school.

R.E. 545. THE CURRICULUM OF AMERICAN SCHOOLS. Fall term. Credit two or three hours. Enrollment limited to graduate students, teachers, and other specialists. M 4-6. Mr. STUTZ. (See page 35 for description.)

HOME ECONOMICS EDUCATION

H.E. Ed. 300. SPECIAL PROBLEMS FOR UNDERGRADUATE STUDENTS. Fall and spring terms. Credit and hours to be arranged. Department staff.

For students recommended by counselors and approved by the head of the department and the instructor in charge for independent, advanced work not otherwise provided in the department or for special arrangement of course work necessitated because of previous training.

Students must prepare two copies of a description of the problem they wish to undertake. One, signed by the instructor directing it and the head of the department, must be filed with preregistration materials. The second copy is left with the instructor. The form to be used may be obtained in Room 135.

H.E. Ed. 310. THE HOME ECONOMIST AS A TEACHER. Fall term. Credit two hours. T Th 11. Van Rensselaer East Wing 5. Open to upperclassmen and graduate students. Miss RHODES.

Designed for students who plan to be extension agents, dietitians, social workers, or home service representatives, or to undertake other work which will involve teaching in a non-school situation. Consideration will be given to social-psychological factors affecting the teaching-learning process, approach to different age and ability levels, use of appropriate media for different purposes, and various instructional techniques applicable to different groups of learners. Opportunity will be provided for observation and participation in educational programs according to students' individual needs.

H.E. Ed. 330-331-332. THE ART OF TEACHING. To be taken in two successive terms, 330 in the first, and both 331 and 332 in the second. Open to juniors and seniors preparing to teach home economics in the public schools. Miss MOSER, coordinator, assisted by Misses HELTZEL, PATTERSON and ELLIOTT, Mrs. CARMICHAEL, Mrs. CORNELIUS, Mrs. NELSON, and cooperating teachers.

This sequence of courses involves observation and participation in the home economics program of one or more schools in communities near Ithaca. H.E. Ed. 330 is offered on a regular schedule throughout each semester, but special scheduling is required for H.E. Ed. 331 and 332; two different possibilities are provided (see 331A + 332A and 331B + 332B).

It is recommended that students use public transportation in traveling to and from the student teaching centers.

330. Fall and spring. Credit two hours. Discussion period, T Th 8. Van Rensselaer East Wing 5. Field work is required one half-day each week for six weeks for the purpose of visiting homemaking programs in cooperating schools. Consideration is given to (1) procedures for determining the scope and sequence of the content of home economics classes, and (2) the choice of learning experiences appropriate for use in the secondary schools. Students have an opportunity to study the community and the place of home economics in the total educational program.

331A. Fall. Credit two hours. To be scheduled concurrently with H.E. Ed. 332A, H.E.M. 302, and if desired, C.D.&F.R. 302. W 10-12 for full semester; W 9 for one-half semester, and W 1:15-3 for the other half. Van Rensselaer East Wing 5.

331B. Spring. Credit two hours. To be scheduled concurrently with H.E. Ed. 332B, H.E.M. 302, and R.E. 411 (special blocked sections of each course). M T W Th F 11 for first four and last four weeks of the semester. Van Rensselaer East Wing 5.

Consideration is given to major concerns related to the teaching of home economics at secondary and adult levels.

332A. Fall. Credit six hours. Full time for either first or second half of semester, except for the 331A meetings scheduled W 10-12 and 1:15-3.

332B. Spring. Credit six hours. Full time for middle seven weeks of semester. When the spring vacation of the cooperating schools does not correspond to that of the University, each student will be expected to follow the vacation schedule of the particular school in which she is teaching.

Guided student teaching experience with students assigned to cooperating public schools. Student teachers live in the school communities and work under the guidance of both local homemaking teachers and department faculty.

H.E. Ed. 403. SPECIAL PROBLEMS FOR GRADUATE STUDENTS. Fall and spring

terms. Credit and hours to be arranged. Department staff.
For graduate students recommended by their chairmen and approved by the instructor in charge for independent advanced work.

H.E. Ed. 407. *THESIS AND RESEARCH.* Fall and spring terms. Credit and hours to be arranged. Registration with permission of the chairman of the graduate committee and the instructor. Misses BLACKWELL, HELTZEL, MOSER, PATTERSON, and RHODES, and Mrs. CARMICHAEL and Mrs. NELSON.

H.E. Ed. 437. *ADULT EDUCATION.* Fall term. Credit two or three hours. T 4-5:45. Van Rensselaer East Wing 5. For graduate students. Seniors admitted by permission of the instructor. Miss PATTERSON.

An introductory course planned for teachers, administrators, directors of adult education, extension agents, parent educators, and others. Focused on educational needs, program planning suited to adult learners, choosing teaching procedures and materials for adults, promotion of programs; philosophy and evaluation in adult education. A wide variety of adult education activities in the Ithaca area provide opportunity for students to observe the application of principles to local programs. Students taking the third credit either observe or assist in teaching adults in local programs, or choose some other suitable problem.

H.E. Ed. 438. *SEMINAR IN ADULT HOME ECONOMICS EDUCATION.* Spring term. Credit two hours. For graduate students. T 4-5:45. Van Rensselaer East Wing. 5. Miss PATTERSON.

Planned for students specializing in adult education. It usually follows Home Economics Education 437; however, experienced students may register by permission of the instructor without 437. Attention is given to various aspects of organizing and conducting adult programs. Special interests of the students will serve as a guide in the choice of topics and of the relative emphasis to be placed on methods and materials for teaching adults, research in adult education, evaluation of instruction, or supervision of programs.

H.E. Ed. 439. *THE TEACHING OF HOME ECONOMICS.* Spring term. Credit three hours. T Th 10 and other hours to be arranged. Van Rensselaer East Wing 5. Miss PATTERSON. Designed for students with teaching experience or preparing to teach in college, extension, secondary schools, and adult programs. Attention is given to the principles of teaching and to the use of such teaching procedures as discussion, demonstration, laboratory, trips, and use of radio, films, and recordings in

teaching home economics. Opportunity is provided for observing teaching and for experimentation with different teaching aids and procedures.

H.E. Ed. 449. *CURRICULUM PLANNING IN HOME ECONOMICS.* Spring term. Credit two to three hours. W F 9. Van Rensselaer East Wing 5. Miss RHODES.

For high school and college teachers, administrators, and extension personnel. Attention is given to the social-cultural foundations of the home economics curriculum, social-psychological needs of learners, the influence of educational philosophy on curriculum planning, and curriculum planning for different age and ability levels.

Opportunity is given for students to relate curriculum principles to individual situations.

H.E. Ed. 459. *EVALUATION.* Fall term. Credit three hours. M Th 1-2:30. Van Rensselaer East Wing 5. Mrs. NELSON.

For high school and college teachers, administrators, extension agents, and educational research workers. Students without experience in any of these professional positions are admitted by permission of instructor. Basic principles of evaluation will be studied in relation to specific methods of appraising educational programs or individual achievement. Opportunities will be given for constructing and using evaluation instruments.

H.E. Ed. 460. *SEMINAR IN EVALUATION.* Spring term. Credit two hours. Prerequisites, H.E. Ed. 459 and R.E. 453 or equivalent. T Th 2-4. Van Rensselaer East Wing 5. Miss BLACKWELL.

Opportunity for intensive study of the literature concerning educational evaluation, for refinement of appraisal techniques, and for analysis and interpretation of data from current research.

H.E. Ed. 461-462. *THE TEACHER EDUCATOR IN HOME ECONOMICS.* For graduate students preparing for teacher education positions involving supervision of student teachers. Permission of the instructors is required. Previous experience in teaching homemaking at the secondary level is required for H.E. Ed. 462.

461. Fall term. Credit three hours. F 1:30-3. Van Rensselaer East Wing 5. Observation and participation, T Th 8 and several half-day field-trips. Mrs. NELSON.

Opportunity is provided for students to develop understanding of teacher education practices by observing and participating in H.E. Ed. 330. Participation involves teaching one or two

lessons and individual work with students. Additional experiences include observation of student teachers and of supervisory conferences in student teaching centers.

462. Spring term. Credit four hours. Hours to be arranged. Van Rensselaer East Wing 5. Observation and participation, W 10-12, 1-3, and weekly half-day or full-day field trips for half the semester. Miss MOSER and Mrs. NELSON.

Seminar is concerned with basic principles of supervision and their application to the preservice education of home economics teachers. Opportunity is provided for observation and participation in H.E. Ed. 331B, including some teaching in the course and the supervision of a student teacher.

- H.E. Ed. 463. **INTERNSHIP AND FIELD WORK IN TEACHER EDUCATION.** Fall term. Credit two hours. Hours to be arranged. Van Rensselaer East Wing 5. Miss MOSER and Mrs. NELSON.

First eight weeks of semester: supervise one student teacher. Second eight weeks of semester: supervise two student teachers. Conference with college supervisor one hour each week and conferences as needed with cooperating teachers in the public schools. Provision will be made for a follow-up visit to a first year teacher.

- H.E. Ed. 469. **ADMINISTRATION AND SUPERVISION IN HOME ECONOMICS.** Spring term. Credit three hours. W F 2-3:30. Van Rensselaer East Wing 5. Miss RHODES.

Common elements of administrative and supervisory functions, the role of human relations and communication skills, theories of leadership, the characteristics of effective administration and supervision in relation to program planning and evaluation, curriculum construction, in-service education, personnel, and public relations. Opportunity is provided for directed observation related to the student's area of special interest; e.g., administration of

college programs, supervision of state and city public school programs, supervision of cooperative extension programs. Estimated cost of transportation to visit programs, \$15.

- [H.E. Ed. 475. **READINGS IN EDUCATION.** Spring term. Credit two hours. Miss PATTERSON.] Not offered in 1964-1965. Will be offered in 1965-1966.

Open to all graduate students interested in a critical analysis of current literature in the field of education and the consideration of major issues. Students are expected to read widely, and to prepare and present an analysis of various current issues.

- H.E. Ed. 480. **SEMINAR IN HOME ECONOMICS EDUCATION.** Fall and spring terms. No credit. M 4. Van Rensselaer East Wing 5. Fall, Miss RHODES, coordinator; spring, Department staff.

An informal seminar planned for majors and minors in home economics education and for others who are interested. One major aspect of education will be considered each semester.

- [H.E. Ed. 490. **TEACHING HOME ECONOMICS IN HIGHER EDUCATION.** Fall term. Credit two hours. Miss PATTERSON.] Not offered in 1964-1965. Will be offered in 1965-1966.

For students interested in preparing to teach in colleges, junior colleges, or institutes. Opportunities are provided for students to observe and analyze the teaching of college classes.

Application of the principles of teaching to aspects of home economics to be taught, for example, food and nutrition, housing, textiles and clothing, family relations, or management. Deals with (a) the contributions of home economics at the college level, (b) the philosophy involved in cooperatively planned programs, (c) the characteristics of college-age youths, (d) factors affecting student learning, (e) principles influencing the choice of teaching procedures and materials for college teaching, (f) the educative values of group teaching, and (g) evaluation of teaching.

THE DEVELOPMENT OF HUMAN RESOURCES

- ILR 323. **TECHNIQUES AND THEORIES OF TRAINING IN ORGANIZATIONS.** Credit three hours. Spring term.

Deals with the methods used, formally and informally, by organizations for training personnel at all levels. These methods will be compared with relevant psychological formulations of the problem of learning. The place of practice, understanding, and motivation in the acquisition of motor and other skills; the use of case and incident method; learning

techniques in a group setting (discussion and role playing); learning during performance appraisals; learning as a result of identification. Various teaching methods will be practiced.

- ILR 423. **DESIGN AND ADMINISTRATION OF TRAINING PROGRAMS.** Credit three hours. Fall term.

Study of the role and function of organizational training. Consideration will be given to the planning and philosophy of programs

used by organizations to develop the skill, understanding, and attitudes of the work force.

[ILR 524. PUBLIC POLICY AND DEVELOPMENT OF HUMAN RESOURCES. Fall term.]

Analysis of the need for development of human resources, trends in work force requirements and implications for public policy, the role of government and of educational institutions in providing development programs, and the effectiveness of such programs. Attention to the rationale, organization, and administration of specific programs such as apprenticeship, vocational and technical schools, technical institutes, university programs for development of technical, scientific, and managerial skills, and the foreign technical assistance program. Implications and problems of public support for the development of human resources.

ILR 527. MANAGEMENT AND LEADERSHIP DEVELOPMENT. Fall term.

Study of the factors affecting the growth and development of managers and leaders in industrial and other organizations. Consideration is given to the organizational environment, formal and informal developmental programs, leadership theory, and individual attitudes and beliefs. Special emphasis is given to analysis of specific case studies of actual practice.

ILR 627. CURRENT ISSUES AND RESEARCH IN HUMAN RESOURCES DEVELOPMENT. Fall term.

A graduate seminar centering on selected issues and relevant research involved in the development of managerial and work force skills (particular emphasis for the seminar to be determined with the seminar group). Seminar papers and class discussions might concentrate on such topics as management development, impact of technological change on training programs, development of scientific and professional personnel, or labor union education.

INTERDEPARTMENTAL COURSES

Soc. 401. STRUCTURE AND FUNCTIONING OF AMERICAN SOCIETY—I. Fall term. Credit three hours. Prerequisite, Sociology and Anthropology 101 or consent of instructor. T Th S 9. Mr. WILLIAMS.

Systematic analysis of the major institutions of kinship, stratification, economic activity, political structure, education, and religion. Special attention is given to values and their interrelations in the modern social order. Includes a survey of the more important types of groups and associations making up a pluralistic nation.

Soc. 402. STRUCTURE AND FUNCTIONING OF AMERICAN SOCIETY—II. Spring term. Credit three hours. Prerequisite, Sociology and Anthropology 401 or consent of instructor. T Th S 9. Mr. WILLIAMS.

Primary attention is directed to the study of interrelations of institutions, including analysis of the regulation of economic and political systems. Group cooperation and conflict are surveyed. Analysis of important processes of change in institutions, values, and social organization.

THE NATURE OF MAN. *This is a group of three interdepartmental courses dealing with the general topic of the nature of man from the perspectives of the biological and behavioral sciences with particular reference to the determinants of human structure, function, and development. The courses may be taken singly or in any order.*

THE NATURE OF MAN: STRUCTURE AND DEVELOPMENT (Zoology 201). Fall.

Credit three hours. Not open to freshmen. Prerequisite, a laboratory science, preferably zoology or biology. Mr. — and assistants. Lectures, T Th 10; recitations, T 8, 9, 11, W 8, 9, 10, 11, Th 8, 9, 11, or F 8, 9, 10, 11.

The aim is to give the student an understanding of the structure, function, and development of the human body.

THE NATURE OF MAN: THE DEVELOPMENT OF HUMAN BEHAVIOR (Child Development and Family Relationships 115). Fall. Credit three hours. Mr. BRONFENBRENNER. T Th S 10.

The aim is to contribute to the beginning student's knowledge and understanding of human beings through a study of their development from infancy to adulthood. Attention is focused on the role of biological factors, interpersonal relationships, social structure, and cultural values in changing behavior and shaping the individual. Special emphasis is given to the practical and social implications of existing knowledge.

THE NATURE OF MAN: CULTURE AND PERSONALITY (Anthropology 312). Spring. Credit four hours. Prerequisite, one course at the 100 or 200 level in anthropology, sociology, psychology, or zoology. M W F 10. Messrs. LAMBERT and OPLER.

The study of the individual in his society, emphasizing the relationship between social structure, cultural context, and human behavior. Attention is given largely to the study of personality, "normal" and "abnormal," in non-Western societies.

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